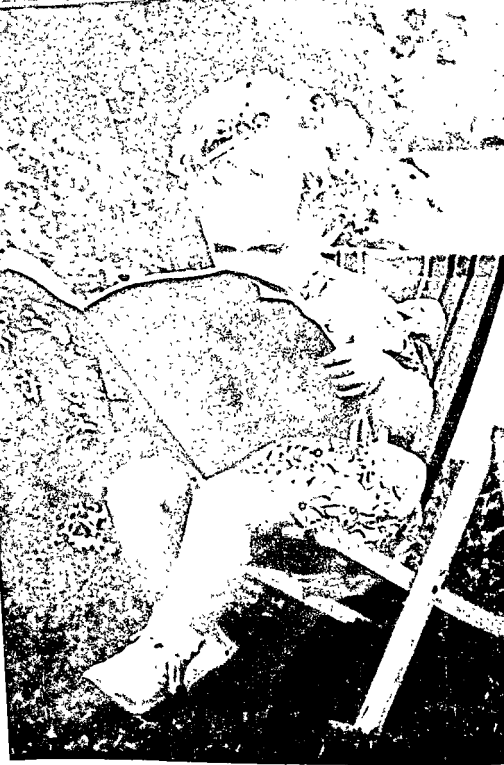*Foundations of
Reading Instruction*

Foundations of Reading Instruction

WITH EMPHASIS ON DIFFERENTIATED GUIDANCE

by

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Introduction

Foundations of Reading Instruction has been organized as a textbook for use in teachers' colleges and schools of education. Photographs of school activities have been included to "demonstrate" for the inexperienced teacher many of the procedures recommended herein. Instructors in professional education courses will find it necessary to provide additional demonstrations with children so that professional students may be taken one step nearer to direct experience. Teachers in service should find many helpful suggestions in the photographs of activities taken in the classrooms of master teachers.

The central theme of this book deals with the major problem of the elementary school teacher: how to identify individual needs and how to provide for them in a classroom situation. It has been the writer's experience that teachers improve their instruction in this respect when they are given specific guidance on *how* to do the job and *why*. The hard way to teach school is to regiment instruction by hearing lessons from common basal textbooks. This book orients the teacher in "how we got this way" in education and guides her to greater professional competence in equalizing learning opportunities in the classroom.*

Six major emphases buttress the central theme of this book: First, *differentiated guidance.* Each topic has been discussed in terms of the range of individual differences. Teaching procedures are outlined on the assumption that equal learning opportunities are provided in a democratic classroom situation. Second, *general language development.* In each chapter, the reader is reminded that reading is only one facet of language. Teaching procedures are based on the assumption that the language arts are inextricably interrelated. Third, *reading readiness.* Readiness for initial reading instruction is approached by considering the qualifications of the child and his mode of learning. In addition, emphasis is given to criteria for evaluating readiness for instruction at successive "levels" of achievement. Fourth, *semantic, or meaning, basis of language.* The reader is constantly reminded of the relationship of language to experience. Fifth, *social basis of language.* Emphasis is placed on language as a means of social intercourse; hence, the desirability of developing language skills in social situations. This emphasis calls attention to teaching the child *how* and *what* to read *when* the need arises. Sixth, *systematic sequences.* Since the grade placement of subject has tended to further regimentation, emphasis has been given to systematic sequences. Individual development rather than the lock-step coverage of subject matter is given primary consideration. These six emphases point to personality development as one of the major goals of education in a democracy.

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* See also Betts, Emmett A. *Prevention and Correction of Reading Difficulties.* Evanston, Ill.: Row, Peterson and Company, 1936. Betts and Betts. *An Index to Literature on Reading and Related Topics.* New York: American Book Company, 1945

At first glance, the cumulative effect of the major emphases throughout this book may appear to be excess baggage for the reader. However, the writer's experience in teacher education has led him to believe that the basic premises must be related specifically to each major area of reading instruction. For this reason, then, the reader is reminded again and again of the necessity for differentiated guidance. There is no relief from the point of view presented herein until the last word of the last chapter is read. The writer cherishes the hope that the emphases have not deteriorated to redundancy.

The five chapters of Part One describe the status quo in traditional schools and give suggestions for reorganization. In Chapter I, the author presents his point of view and considers assumptions basic to a school program that shall prevent reading difficulties. In Chapter II, the reader is given a brief review of the way in which graded schools came into being and a summary of undesirable elements in the system of grading children. Chapter III presents the evidence gained from research establishing the exploitation of childhood in traditional schools. A summary of attempts to break the lock step in education during the last century is given in Chapter IV. Much is to be gained from this chapter. In it the author describes the strengths and weaknesses of several attempts to combat regimentation in elementary schools by administrative reorganization. Suggestions for underwriting a political democracy by observing the basic principles of an educational democracy are given in Chapter V. Part One, therefore, is a background upon which the remainder of the book is projected.

Part Two comes to close grips with the general nature of the reading problem. Chapter VI is used to describe the reading *process* in relationship to the other facets of language. In this chapter, an explanation is given for the fact that growth in reading is enhanced substantially when speech, reading, and writing are geared together in a general language approach to learning. Three important jobs are done in Chapter VII: the relationship of reading to other learning aids is established; the purposes and objectives of traditional instruction in reading are compared and contrasted to those of modern reading instruction; and five major goals of reading instruction are described in terms of skills, abilities, attitudes, and information, with the caution that the goals must be differentiated in terms of individual differences in capacities. Part Two was written with the idea in mind that the teacher's basic notions about the place of reading in the educational scheme dictate her practices.

Part Three goes into considerable detail regarding the nature of readiness for reading and the means of appraising readiness for systematic instruction in reading. In Chapter VIII, a description is given of the types of children admitted to the first grade in order to assure for teachers an adequate understanding of the wide range of needs requiring consideration in the prereading program. Chapter IX serves to point out not only the major factors in readiness for reading at all school levels, but also the interrelationships among these factors. Practices that facilitate and interfere with the development of social and emotional readiness for reading activities are described in Chapter X. In Chapter XI, a relatively new point of view is given on visual readiness for reading. The teacher is given specific suggestions for screening out children with functional vision problems and for follow up. Chapter XII is an attempt to cover "what every teacher should know" about auditory readiness for reading: how to identify children with hearing impairments and how to follow up. Part Three is ter-

minated with Chapter XIII which gives specific suggestions for identifying reading-readiness needs of a pedagogical nature. Experienced teachers will recognize in Part Three the "whole child" approach to problems of reading readiness.

Part Four has been loaded with suggestions for developing readiness for initial reading instruction. In Chapter XIV, the goals of reading-readiness instruction are considered in the light of the major goals of reading instruction. Emphasis has been given to the role of interests and to the need for systematic guidance rather than learning prescriptions. Types of reading-readiness activities are described and suggestions are given regarding materials needed for developmental activities. Chapter XV describes the procedures for developing a curiosity about books and for developing basic notions about the relationship between visual symbols and the things which they represent. In Chapter XVI, the teacher is given specific suggestions for developing the basis for language; namely, experience. Detailed suggestions for developing oral language facility are given in Chapter XVII. Practices that foster growth in observational skills are described in Chapter XVIII, Visual and Auditory Discrimination. Part Four is concluded with a chapter on that delicate topic of parent-teacher relationships.

Part Five deals primarily with two aspects of reading instruction in the elementary schools: how to discover reading levels and specific needs and how to provide systematic reading instruction differentiated in terms of pupil requirements. Detailed suggestions for initial reading instruction are given in Chapter XX. An outline for the systematic appraisal of reading difficulty is given in Chapter XXI. This chapter is a careful description of how graded instructional materials in the classroom can be used to estimate independent, instructional, and probable reading capacity levels of pupils. Data obtained on specific reading needs from an informal inventory are the foundations of differentiated reading instruction. In the next two chapters, approaches to systematic reading instruction on a differentiated basis are described. Chapter XXII contains detailed explanations of the basal-reader approach. At this point, specific help is given on grouping and on the essentials of a directed reading activity. Chapter XXIII presents a plan for developing basic reading abilities through experience; that is, through the organization of large areas or units of curriculum experiences. Chapter XXIV is a detailed outline and discussion of reading vocabulary. Specific procedures are given for the development of a sight vocabulary, phonetic analysis techniques, and structural analysis techniques. Informal procedures are given for developing dictionary skills and for appraising word-recognition achievement. This chapter is terminated with proposals for promoting semantic (or meaning) sensitivity. Part Five is concluded with a discussion of the levels at which instruction may be differentiated in elementary schools.

The writer is grateful to many individuals and firms for generous co-operation in the development of this work. A detailed list of their names will be found at the end of the book.

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Public Schools, Syracuse, N.Y.

PART ONE

The Reading Situation

More innovations have been effected in reading instruction
in the first thirty years of the present century than during
the entire three hundred years of American history antedat-
ing that period   NILA BANTON SMITH (43,[*] p 264)

Differences

The wide range of capacities, abilities,
needs, and interests in any classroom
necessitates a differentiated approach to
instruction at all school levels and in all
areas of learning. Reading is a highly
valued aid to learning. Children vary
widely in their readiness to use this aid
and in their control over this complex
process.

Teaching is the practical recognition
of differences Until differences among
the pupils of a given class are recognized,
instruction cannot be on a sound, effec-
tive, systematic basis. A significant part
of the dilemma in modern education has
been brought about by a failure to admit
differences—by the treating of all children
alike.

A "class" or "grade" is an abstraction;
it exists in the teacher's mind or nervous
system. Actually, a class is comprised of
Bobby, Johnny, Mary, Alice, etc ,—a
group of *individuals* These individuals
vary widely in capacities, achievements,
interests, etc In a sound educational
program, the practices must square with
the *facts* Regimented instruction (i.e.,
the use of the same materials for all the
pupils of a "class" or "grade," etc)
must be *justified* on the basis of question-
able assumptions, whereas the *facts* make
differentiated instruction imperative No
one has *ever seen* a "first-grade class," or

a "fifth grade-class." What a teacher
should "see" is a group of *individuals*,
unique unto themselves Not until dif-
ferences are "seen" is the teacher *ready*
to teach, because *learning* the child must
precede *teaching* him.

Differentiation of instruction is making
a strong bid to supersede the remedial
reading of the 1930's, and is likely to take
precedence over the limited plans for
grouping and for individualized instruc-
tion A program of differentiated instruc-
tion involves more than small group and
individual activities. It includes *class*
planning and activities, *group* planning
and activities, and *individual* planning
and activities. Differentiated instruction
is a way of evaluating and *living* with a
group of *individuals* in a classroom that
results in a *maximum of development* of
each individual in terms of his interests,
needs, and capacities. Through this type
of classroom administration, basic read-
ing skills, abilities, attitudes, and infor-
mation are given life significance.

Differences Among Individuals. Children
vary in their rates of learning. When
classroom activities are based on this as-
sumption, the teacher does not attempt
to keep every member on the same page
in the "reader" or even in the same book,
and not all first-grade pupils are expected
to progress from preprimers to primers
in goose-step fashion, for each small
group is allowed to proceed at maximum
rate. Joy and satisfaction cannot result

[*] Refers to list, p 14

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in situations where fast learners are held to the attainments of the immature and the slow are driven toward the attainments of the average.

Education, to be effective, must be continuous, individual, highly personal, active rather than passive. As a result, the range of individual differences within a group is increased rather than diminished. A sound educational program should extend these differences the longer the pupils remain in school. It appears, then, hardly conceivable that the so-called "fundamentals" or "minimum essentials" can be defined and written into one prescription to meet the immediate and future needs of every child at a given chronological, mental, and social level. Since each classroom presents many problems relative to group living and learning, the teacher cannot avoid her obligation to provide situations where equal learning opportunities are possible—where each child may learn at his own rate and in terms of his own interests.

Recognition of Differences. The world discovers and capitalizes on individual differences. Great choruses thrill millions, but they are possible because of variations among voices; writers entertain and instruct others, yet they, too, are able to do this because they deviate in interests and abilities; remarkable engineering projects are achieved annually, resulting from co-operative efforts of those who vary widely; countless endeavors of civilized man make life challenging because men differ one from another.

These variations of interests and abilities are developed in life outside the school. In fact, this has been so much an 'outside-the-school' affair that music organizations, art clubs, and other attempts to provide for individual expression through activities of high social value have been called extracurricular.

Teacher discussions of averages, medians, and other measures of central tendency are short of reality unless measures of dispersion, deviations, or variability are added to the picture. The history of civilization shows that neither men nor children can be standardized and regimented; scientific studies in education and psychology which cite the extent of behavior problems and school failures give ample evidence of the need for a translation into schoolroom practice of the present knowledge of child development so that schools can be learner centered rather than grade and calendar dictated.

Prevention Through Differentiated Guidance

Preventive reading instruction is primarily differentiated guidance in language development. From available evidence it appears that a program designed to prevent a majority of our present reading ills must be developed in terms of premises quite different from those basic to traditional forms of education. Basic to preventive reading instruction are certain assumptions, of which a few will be described very briefly here.

First, reading is a *facet* rather than an isolated fragment of language. If this assumption is valid, then systematic sequences in reading must be validated in terms of general language development.

Second, reading is primarily a problem of interpretation, in the larger sense. The semantic emphasis on reading as "the reconstruction of the facts behind the symbols" must take precedence over the so-called mechanics of reading. The instructional jobs in reading—such as location of information, comprehension, selection and evaluation, and organization—begin with the admission of the child to kindergarten or first grade and continue to be perennial problems through college and adult life.

Third, readiness for reading involves not only a general language development and a background of direct and vicarious experience but also certain other

specifics (such as general motive questions, needs, and interests) which orient the learner for the reading of a given unit of material. In this sense, readiness is not something that can be purchased in a prereading book. Readiness is a problem at all levels of instruction. In the light of this assumption, the recent trend in basal readers to postpone initial reading instruction for *all* pupils becomes one to be carefully controlled.

Fourth, language patterns are developed systematically and, to a degree, are unique unto each individual. If this assumption is valid, then the overemphasis on grade placement of curriculum items in the traditional schools of the past must be superseded by attention to systematic sequences on a differentiated basis. For example, it is a shock for some traditionalists to learn that the authors of seventeen series of spellers for grades two to eight agreed on the grade placement of only one word (10). It will continue to be difficult to overcome traditional notions that there is such a curriculum item as a second-grade spelling or reading word until learner development is given first consideration.

Fifth, a wide range of language abilities exists at any one "grade level." For example, our studies have shown that fifth-grade children vary in reading ability from about the "preprimer level" to "twelfth-grade level" that the reading rates for the same group of children ranged from approximately thirty words per minute to more than eight hundred.

Sixth, education increases individual differences. For example, the reading capacities of six-year-olds vary widely but the reading abilities fall within very narrow limits. With each successive year or "grade," the range of reading abilities is extended. Differentiated instruction increases these differences among pupils of a given age or "grade" level instead of producing homogeneity.

Learning through Recognition of Differences

Through this type of classroom adminis-tration, basic reading skills, abilities, and attitudes—such as location of information, selection and evaluation, organization, etc.—are given life significance. Differentiation looms large here as in all areas of school life, for a wide range of experiences and needs dictates the practical purposes to which reading accomplishments will be put. Language is a *social* tool to be developed in social situations.

This point of view is expressed by DeWitt Boney in his article, "Teaching Children to Read as They Learned to Talk" (18, pp. 139-140):

Today our attention must be extended to the teacher who spends so much time, particularly in the first and second grades, with children who do not respond to her instruction. For if this time were given to the teaching of health, music, and fine art, and to extending the child's experience into his environment we would have, I am sure, more fertile fields for growth.

In learning to talk this wastefulness is not so noticeable. It is questionable whether it exists to any appreciable degree. In the average home the baby's first talk is a joyful family experience. However, it must not be overlooked that this is also a difficult experience for the child. The constant jabber of a new word is evidence of this. The child has to drill himself. This drill is pleasant, and it begets more drill. It is significant that the child himself starts and stops the drilling process. It is probably true that the ease and efficiency with which children learn to talk are due largely to the factors of self-motivation and to maturity. The home does not set up special pedagogical methods to induce the child to talk before he is ready. Parents are not disturbed at all if a child waits to begin his talking until he is twenty-four months old. Fortunately, no one has as yet found that such a delay makes a difference in one's success in later life. Thus without systematic instruction, without a vocabulary quotient to govern the repetition of words, and without a master word list made in Chicago or New York, he yet learns to talk. Is there anyone who will say that this natural method of instruction is less efficient than the methods we have thus far devised for reading?

BLOCKING IN A "FOUR-FREEDOMS" MURAL

Clark M Frazer, Bernice Bryan   *Cheney, Wash.*

Sequence of Language Development

The evidence indicates that language development takes place in an orderly sequence The potential capacity to live in a world where language is one of the chief means of communication is established before birth If birth has been achieved without interference with the integrity of the nervous system and the normal functioning of the speech apparatus, language development proceeds in terms of a given sequence. The rate of growth in language will depend upon a composite of inherited factors and environmental influences

Stage One: Experience. The first acquisition of the child is experience with objects and situations Through seeing, hearing, feeling, and other processes, he learns about the existence of concrete

objects. In a short time, he begins to interpret facial expressions and social situations. Through experience the child acquires the prerequisites for language Experience is the basis of meaning which, in turn, contributes to language needs.

Stage Two: Hearing Comprehension The second stage of language development has been reached when the child differentiates between the speech noises made in relationship to him If a child has a hearing impairment, his experiences are limited and his acquisition of language is delayed As hearing comprehension is developed, the child learns to abstract by relating speech sounds to experience. In his early life, speech sounds as abstractions of objects and situations had little or no meaning because there was no store of experiences in his nervous system to which they could be related. Experience with objects, situations, and

to no small degree on the extent to which the visual symbols and their organization are correlated with the child's control over vocabulary, sentence structure, and related linguistic factors. If the language or the things symbolized are not commensurate with the achievement of the child, he will be frustrated in his attempts to formulate the necessary mental constructs, and, therefore, be disqualified for reading.

Stage Five: Writing In the fifth stage of the child's linguistic development, he acquires facility in the use of visual symbols for communicating with others. Before this stage, he has been concerned primarily with the interpretation of visual symbols. During stage five, therefore, the child learns to use visual symbols for expressing his thoughts, feelings, and emotions. He acquires some control over writing.

In developing writing skills and abilities, the child is confronted with many language problems including spelling, sentence structure, paragraphing, grammar, usage, handwriting, and the like. Spelling, it will be noted, is only one of the language problems confronting the child who would learn to express his thoughts and feelings through writing.

The child who is ready for systematic instruction in writing, including spelling, will have acquired, among other learnings, a speaking vocabulary of about five thousand words and a reading vocabulary of at least three or four hundred words. These words are used in many verbal contexts to designate a number of denotations and connotations. And, too, the seven-year-old has considerable insight in using language to inform and to influence feelings.

Stage Six Refinement of Language Control. The development of linguistic ability is not characterized by clean-cut stages in which growth in one aspect of language is terminated and a new set of processes takes over completely Instead, control over spoken and written language is achieved through maturation and ex-

perience. Language growth during one stage contributes to readiness for the next stage and is promoted as control is extended over successive facets of language. Much of learning has to do with the development of facility in interpreting and in expressing mental constructs through language Language is a means of symbolizing experience—past, present, or predicted It is significant that written language depends upon spoken language. The child achieves considerable oral language facility before he is qualified for reading and, subsequently, for writing Oral language facility is being improved as the child proceeds through the reading and writing stages. Speaking, reading, and writing continue to be enhanced as the individual learns the use of language and as he learns through language.

Stage six, therefore, is a continuation of language development based on previously acquired fundamentals. During this stage, experience is broadened, the ability to deal with increasingly higher levels of abstractions is developed, the power to do sustained thinking is increased, a higher degree of socialization is achieved, and desirable attitudes toward the effective use of language are fostered Hence, guidance in all phases of language development is a perennial problem in elementary and secondary schools.

This brief sketch of the sequence of language development is intended to direct attention to the fundamental relationships between the facets of language The sum total of language skills, abilities, attitudes, and information may
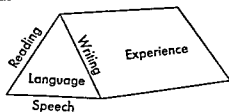
be represented by a triangle, the area of the triangle representing language. Since

oral language is the child's first acquisition, the base of the triangle may be labeled *speech*. A second side of the triangle is *reading*, the third side, *writing*, including spelling Speech, reading, and writing are actually sides, or facets, of a large area of learning called *language*

The diagram is not complete, however, when the triangle has been drawn, because language is symbolic Meaning does not exist in words or combinations of words Language must represent things—facts or experience—for the individual who is listening, speaking, reading, or writing The speaker or the writer is expressing mental constructs; the listener or reader must *reconstruct* the facts behind the symbols Meaning exists in the relationships between language and facts, that is, in the language-fact relationships To isolate language from experience is to divorce it from reality. Hence, it is necessary to complete the diagram by adding a third dimension labeled *experience*. The diagram, therefore, will take the form of a three-sided solid, or prism

Implications of Sequential Development
The sequential development of language abilities has several significant implications for teachers. First, the departmentalization, and more often the compartmentalization, of instruction in the elementary school cannot be justified Not only is it undesirable to attempt to teach speech, reading, and writing as separate subjects, but also it is uneconomical to divorce the language arts from the so-called content subjects

Second, children who are qualified for systematic instruction in reading have acquired control over vocabulary and sentence structure in relationship to a substantial background of experience This achievement should be evaluated before instructional materials are selected. Some of the preprimers in use are so stilted in language structure and so depleted in possible mental constructs that they fail to challenge a child, whether he is dull, average, or superior

These impoverished materials undoubtedly contribute to the present dilemma in language instruction

Third, a basic understanding of the sequential development of language makes clear the need for guiding children's speech, reading, and writing through experience. For example, basic notions regarding *when* and *how* to use language skills and abilities are developed through class-, group-, and individual-dictated experience records. By this approach, speech, reading, and writing become social instruments for dealing with experience. And, perhaps more important, desirable attitudes toward the uses of language are fostered

When the above statements regarding the development of linguistic abilities are considered, the following conclusions appear to be valid

1. Speech, reading, and writing are facets of a larger area called language. The traditional teaching of speech, reading, spelling, penmanship, grammar, and composition as entities is not consonant with the facts regarding child development. Reading, for example, is a process rather than a subject.

2 Speech, reading, and writing are social instruments; hence, instruction is effective to the degree that these basic skills and abilities are developed in situations socially significant to the learner.

A Point of View

All teachers deal directly with language-fact relationships Learner experiences with these relationships range all the way from the direct to the vicarious; that is, from actual participation, observation, and the like to pictures, diagrams, and reading It is the teacher's problem to insure an adequate background of experience with facts and to direct the learner in his acquisition of language faculty for dealing with the facts.

No facet of language, especially reading, can be developed in isolation from

MAKING PUPPETS

University Elementary School *Lexington, Kentucky*

facts. Since a pupil cannot just read "reading" but must read about something (such as science, social science, and literature), reading is a process rather than a subject. A significant part of this notion is that reading skills, abilities, attitudes, and information are developed in a "reading-to-learn" situation rather than in a "learning-to-read" situation. It follows, then, that teachers at all grade levels and in all content, or subject-matter, areas are directly responsible for the systematic development of reading ability as an aid to learning.

Until educators come to close grips with basic notions of language-fact relationships (i.e., with problems of relating language and experience), their functions of appraising reading needs and of providing guidance in terms of those needs must be defaulted or unexecuted. First, each teacher must have a grasp of the goals of reading instruction. This calls for an understanding of the basic instructional jobs which include (1) knowing when to read, (2) the location of information pertinent to a given

problem, (3) the selection and evaluation of that information, (4) the organization of the information for retention and for communication with others interested in the same problem, and (5) the factors that contribute to comprehension and retention of the information.

Second, the teacher must recognize wide ranges in background of experiences. The learner must have had experiences with the facts, if he is to be able to cope with the language used to represent the facts. In short, experiences must precede reading because "reading is the reconstruction of the facts behind the symbols." This is another way of stating that reading requires a "taking to" the printed page. Since a wide range of backgrounds exists at any one grade level, successful participation in reading activities requires (1) a preliminary development of the facts and (2) the selection of materials using language (i.e., vocabulary, sentence structure, etc.) that best represent those facts for each pupil.

Third, the teacher must recognize

wide ranges at any one grade level in abilities to deal with language. This means that wide differences in reading abilities exist at all grade levels. In fact, education increases these differences. An ever widening range of differences is evident from one grade level to another. This necessitates increased vigilance to differentiate instruction as the pupils progress from one level to another. In the primary grades, this need for differentiation applies to readiness for systematic reading instruction as well as to readiness for each succeeding unit of reading activity. Special class teachers have similar problems at all times. In the intermediate and secondary grades, the number of pupils not yet ready for systematic instruction in reading has approached the zero point and the emphasis should be on the wide range of reading abilities. The teacher of a second grade can expect children to vary from a total lack of reading ability to at least third-grade level; the fifth-grade teacher, from "preprimer" level to twelfth-grade level, and the high-school teacher, from second- or third-grade level to the average ability of a college student. These differences must be recognized in classroom situations at all grade levels in order to establish guidance in reading and study on a functional basis.

Fourth, each teacher must recognize wide variations in capacities for achievement in reading. Some children achieving in reading at or above the class average are retarded in reading, whereas some children achieving below the class average are not retarded in reading. Some index to capacity for achievement should be secured in order to provide adequate guidance.

In modern schools, administration and instruction are pointed toward the goal of differentiated instruction in terms of learner needs and interests. Two fundamental bases of instruction are given credence. First, learner needs are analyzed in terms of the broad goals of education. Second, learner guidance is provided in terms of carefully appraised needs. Stated in another way: the teacher *learns* (i.e., studies) the pupil before attempting to *teach* him. These two fundamental considerations form the crux of education.

Summary

That wide differences occur among individuals is a fact acknowledged in life outside the school. In order to measure up to reality, the school must recognize individual differences as well as the wide variations in rates of learning that exist among children. When these facts are consistently considered in classrooms, differentiation of instruction based upon individual needs will follow. With the introduction of differentiated instruction, reading difficulties can be reduced to a minimum, because prevention is emphasized instead of correction.

A full recognition of the sequential development of language makes it clear that language and facts are inextricably related. Basic notions of language-facts relationships lead to a realization of reading as a facet of language. Since reading ability is one facet of language development, all teachers are directly concerned with the development of reading ability.

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Evolution of Graded Schools

The history of American education is a review of the rise of undifferentiated mass education and subsequent attempts to break the lock step created thereby.

Coming of the Lock Step

Definite grading of materials and children was unknown in the early American elementary schools. The aims of education were very narrow; the curriculum was limited largely to the three R's, instruction was largely individual; the administrative problems were relatively simple. Then mass education was extended to all children; compulsory attendance was enforced; enrollments multiplied; public interest in general education became heightened; the functions of the elementary school broadened; the school year lengthened; and administrative problems became increasingly complex. During that period, instruction fell into a lock step which is still to be broken.

MONITORIAL SYSTEM OF INSTRUCTION

The monitorial system, imported from England, did much to foster, in a mechanical and superficial way, a more careful classification of children and the rise of graded schools in America. These schools were advocated by Andrew Bell and Joseph Lancaster. Heretofore, universal education had been blocked by the lack of efficient teachers, the cost of instruction, and a serious lack of discipline. The distinctive feature of the Bell and Lancaster plan was a type of organization in which student teachers, called monitors, gave instruction without pay to the younger pupils. This plan was widely received in England because of the low cost and the relative effectiveness of instruction It served the one purpose of heightening public interest in free schools.

The Lancastrian monitorial system of instruction was first introduced in the United States with the opening of a school in New York City in 1806. From here the plan spread to other cities and states, receiving some impetus by the visit of Lancaster to the United States in 1818. By the time the plan fell into disuse about 1860, the American free-school system had taken its first faltering steps.

In the beginning the monitorial system was used for teaching the catechism and reading. Later it was extended to the other common branches and to high schools. This plan represents one of the highest forms of mechanical regimentation against which leaders in education are still fighting.

THE RISE OF GRADED SCHOOLS

In his much criticized *Seventh Annual Report* (1843), Horace Mann recommended introducing into America the graded organization of Prussian schools. Reisner (16, p. 365) comments: "The first stage in the process of differentiation of instruction took place in terms of schools rather than in terms of classes."

15

The grade classification of children and of subject matter were ushered into the American scene through mass education *From that day to this* school reformers have been challenged in their every effort to remove the evils of rigid grading

Cubberley (8, p 228) writes

This creation of schools of different grades took place largely as new buildings were needed and erected With each additional *building in the same district the children* were put into better classified schools This same division of schools for purposes of grading, as new building facilities were provided, took place generally over the *United States*, between 1820 and 1850, though with quite different results and nomenclature

Cubberley continues (8, pp 229–232).

The first step in the evolution of the present class-grade organization of our schools was the division of the school system into schools of two or more different grades, such as Primary, Intermediate, Grammar, etc This began early, and was accomplished generally in our cities by 1840 to 1845

The next step in the evolution of the graded system was the division of each school into classes This also began early, certainly by 1810, and was fully accomplished in the cities by 1840

The third and final step in the evolution of the graded system was to build schools with smaller classrooms, or to subdivide the larger rooms, change the separate and independent and duplicate school on each floor, which had been the common plan for so long, into parts of one school organization, sort and grade the pupils, and outline the instruction by years, and the class system was at hand This process began in the decade of the thirties and was largely accomplished in the cities by 1850 In the smaller places it came later, but usually was accomplished by or before 1870 In the rural districts class grading was not introduced until the last quarter of the nineteenth century.

Eby and Arrowood (10, p 722) point out

Four movements tended to consolidate the elementary work and to bring about grading (1) the change from individual to simultaneous instruction, (2) the grading of subject matter; (3) the monitorial system, which concentrated large numbers of children in one school; and (4) the employment of trained teachers Pestalozzi had insisted upon grading, and the system had been introduced into Germany. Moreover, Lancaster, Bell, Owen, and David Stow had demonstrated that school organization may be a great help in improving instruction Stow advocated a separate teacher for each class, and attempted to organize on this basis the schools connected with the Glasgow Training School The movement for grading was successfully introduced into America between 1820 and 1850

McGuffey's carefully graded and widely used series of readers, published about 1840, was a natural result of developments in the organization of post-Revolutionary schools in America.

Thus a graded system of schools was brought into being for a number of reasons First, the old-world organization of public schools on a class-distinction basis was counteracted in the United States by the development of a single, unitary system of free education Economic necessity and social desire undoubtedly contributed to this action Second, the increase in the school population made imperative some type of revision Third, an expansion of educational offerings—fostered somewhat by local autonomy—stimulated efforts toward improvement. Fourth, the lengthening of the school term paved the way for a more nearly systematic organization Such a point was reached that only the abilities and efforts of Horace Mann, Henry Barnard, Calvin E Stowe, George B Emerson, and John D. Philbrick could reorganize the unwieldy and expensive school of the three R's to further the possibilities of equal learning opportunities

Problems Arising From Graded Schools

Inherent in this unitary and unified school reorganization were a number of

undesirable elements which have persisted to the present day:

Reading Upon School Entrance. Children were admitted in many places to learn to read and spell at the age of five years. According to Cubberley (8, p. 233), the pressure of numbers in the primary school caused authorities in many centers to raise the entrance age to six. To this day, most parents still expect their children to learn to read upon entrance to the first grade.

At the beginning of the twentieth century, Dewey (9) and Patrick (15) hurled challenges, based on theoretical considerations, at those who would disregard the motives and capacity of the learner by forcing six-year-olds into the learning-to-read process. The greatest minds in the history of modern education have pointed the way, and present-day investigators are accumulating rapidly a great amount of evidence on the subject. The problem is not yet settled in practice.

Grading Children. The graded system was advocated because pupils in the same grade could have the same class books. It is the writer's observation that many learning disabilities in the schools of today are caused by this idea of providing every child—regardless of his capacity or achievement—in a given grade with the same basal textbook. This type of regimentation undoubtedly contributes substantially to retardation in reading and to the perpetuation of individual reading difficulties. Furthermore, it is apparent that the correction of this particular situation on the basis of preventive measures is not likely to take place until every teacher becomes a student of individual differences in relation to reading activities.

READING FOR RECREATION

Public Schools   *Syracuse, N.Y.*

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Inherent in this unitary and unified school reorganization were a number of

Circumscribed Thinking Teachers have rmitted their thinking to be circumscribed by this grade classification of children. The idea of systematic instruction is condoned, but instruction is stematic only when differentiated in rms of *individuals*, not in terms of lasses or grades. Unfortunately, the pecialization of teachers has been carried o the extreme that a typical third-grade eacher usually conceives of herself as being only a *third*-grade specialist, thereby putting herself in a position where she is unable to challenge all the pupils in a given "grade."

Compartmentalized Learning. The grading of courses of study has set up psychological barriers to clear thinking regarding "subjects" or content. For instance, his compartmentalizing of content and processes precludes the development of arithmetic concepts in the social studies as well as the development of literature, music, and art appreciation and skills in connection with those studies. In short, these subject matter barriers have led to the teaching of art for art's sake, the teaching of reading only during a period set aside for that purpose, and other psychologically unsound practices.

Failure to Recognize Individual Needs. The grading of schools has contributed to confused thinking regarding systematic instruction. Although in need of continuous appraisal and refinement, systematic sequences have been evolved which are believed to contribute to the development of reading ability. To illustrate, authorities quite generally believe that pupils should develop techniques for establishing meaning in reading situations before attention is directed toward mechanics, such as those involved in word recognition. Investigations have indicated the superiority of certain types of systematic instruction over so-called opportunistic instruction, systematic instruction in terms of individuals rather than classes. Instruction ceases to be systematic for the individual when directed in terms of

class averages rather than individual variations.

Prescriptive Learning. Subject-matter-to-be-learned rather than learner development appears to have been the chief basis for grading the schools. The quarrel in this discussion is not so much with the idea of grading as it is with the erroneous interpretation by both teachers and the public which has resulted in a pupil-classification basis contrary to scientific knowledge For a long time, plans for *flexibility* of grouping have been advanced to counteract growing discontent with *rigidity* of grouping. In his *How Gertrude Teaches Her Children*, published in 1801, Pestalozzi indicated his belief in the grading of instruction, but he stated that it should be done "according to the growing power of the child." He insisted that individuality must be respected

CRUX OF THE DIFFICULTY

There is very little basically wrong in segregating large groups of children into small groups called "grades." Difficulties ensue from misinterpretations, from confusions in thinking reflected in faulty procedure, and from a lack of professional preparation for dealing with educational problems. The crux of the educational problems. The crux of the difficulty created by the grade classification of children is stated neatly by Thomas (18, pp 351-52):

> With such variations as these to be found in the average classroom, it is of course unwise and unfair to demand the same results within a given length of time from all the pupils of the group. The relative simplicity, however, of giving a single assignment to an entire class, the apparent economic and administrative necessity of maintaining fairly large classes for each teacher, the reluctance of many teachers to experiment with innovations which seem to require more extended planning, and the seductively business-like precision which seems to pervade a sharply graded school system, have all combined to preserve the delusion that all pupils in a given grade are capable of uniform achievement, with the more vicious fallacy
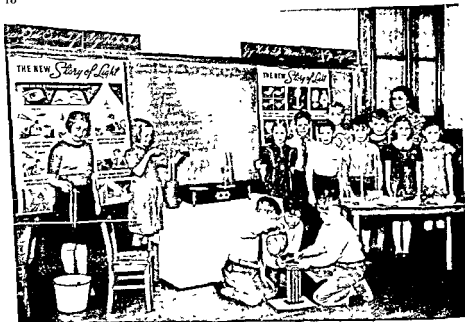
THE STORY OF LIGHT

Victoria Lyles   *York, Pa.*

Grading the Curriculum Grading of subject matter first on a logical then on a psychological basis brought about an emphasis on grade placement of content that further circumscribed the thinking of both teachers and laymen The language program for a given grade is in many places still that which is outlined in a given textbook regardless of the needs of the pupils Likewise, systematic instruction in reading may be limited to one basal reader prepared for a given grade This misinterpretation of the grading of subject matter tended to produce a static curriculum suggesting school practices that falsely required an adjustment of the learner to the curriculum Systematic sequences in terms of individual development should hold sway over grade placement of subject matter

Careful investigations of courses of study reveal that they have been prepared as *guides* rather than as *prescriptions* for children who have been in school

a given number of years For example, a list of poems for a given grade is *suggestive* only and no reasonable educator even implies that every child in a given grade has reached a level of emotional and mental maturity which permits enjoyment of these specific poems. Some pupils may improve their ability to pronounce words through specific help with word analysis, but some children, even in third grade, may not profit by this type of instruction because they do not have control over a sufficient stock of sight words To put these individuals through a series of activities suggested in connection with a basal-reading program for a whole grade may be folly No author of textbooks can write a prescription which will meet the needs of all individuals in a given "grade" If these individual differences did not exist, then the selection of materials and procedures could rest entirely in the hands of an administrative prescriber.

Along with this study of the problem of educational reorganization a number of other practical school problems, such as the acceleration of capable children, retardation and its causes, flexible grading, promotional schemes, courses of study eliminations, and parallel and differentiated courses of study to meet varying social and individual needs, now began to receive a hitherto unknown attention. Within the past half-dozen years not only these problems, but the earlier question of educational reorganization as well, have been put in a new light through the use of the new standard tests and the new ability to measure and grade intelligence. The desirability of some form of educational reorganization now stands forth clearer than ever before.

Rousseau is credited with being the first to assail the assumption that the theory and practice of education should be determined and organized on the basis of adult interests and problems. He pleaded for an approach to the training of the young through their spontaneous interests and activities. From the Stanz Orphanage at the beginning of the nineteenth century, Pestalozzi, the experimentalist, further emphasized the development of power rather than the acquisition of knowledge, experience instead of memorization, and instruction graded "according to the degree of the growing power of the child" so that understanding and mastery might contribute to harmonious development, thus avoiding the forcing of knowledge upon an organism which was insufficiently developed—intellectually, physically, or emotionally.

This philosophy was brought to America by Maclure and Neef in 1806 and enthusiastically interpreted by Sheldon at Oswego, New York, in 1860. Following Pestalozzi, the scholarly and scientific Herbart insisted that "training must be in full harmony with the nature of the child's mind." Froebel protested against the idea that learning should be imposed on the child from without and insisted that the child should not learn to read until there is a certain "felt need."

Learner-centered education ceases to exist when children are forced into situations for which they are unprepared. To the degree that education is put on an undifferentiated mass basis where individual variations in maturation are ignored, childhood will continue to be impoverished.

The graded system of schools evolved during the nineteenth century introduced a type of thinking and practice which undoubtedly will not be overcome for generations. Undifferentiated mass instruction is based on the false assumption that all pupils in a given grade are fundamentally alike and that pupil progress can be calendar-dictated. It has been shown elsewhere (1) that no one administrative plan advanced to date has solved all the problems involved. In the final analysis, differentiation of instruction must be made in the classroom by a well-prepared teacher concerned primarily with the developmental needs of individuals. Many signs point to the beginning of a qualitative era, which undoubtedly will result in a reorganization of the elementary school to meet pupil needs (5).

Summary

Inherent within the graded schools are many factors which defeat the purpose for which they were established, although most of the plans which contributed to their evolution provided for an improvement over existing conditions. The purpose of these schools was to equalize, in one sense, educational opportunity.

Differentiation between autocratic and democratic school procedures hinges largely upon school administrative policies. These have a direct bearing on differentiation of instruction within the classroom.

Systematic instruction presupposes the recognition of individual development and a large amount of teacher and pupil participation in planning.

that the teacher is impartially "treating them all alike" by demanding the same daily tasks of all. As a matter of fact, a uniform requirement means only half-work for part of the class, and impossible effort for another part. Thus the teacher who tries to strike a fair average in the assignment is really unfair to the brighter pupils by depriving them of any challenge to capacity effort, and equally unfair to the slow pupils by depriving them of any opportunity for genuine mastery, and corresponding educational growth. Some teachers, realizing the plight of the latter group, direct their main teaching efforts at the slow pupils, and justify their course by declaring that the "bright ones will learn anyhow." Others, with equal logic but less compassion, allow the stronger pupils to absorb the chief attention and set the pace, on the theory that those who cannot meet such a standard should drop back into a grade where they can do the work. In reality none of these three plans is fair or democratic, in the sense of granting to all pupils equal opportunities for the best educational progress of which they are individually capable.

Rise of the Modern Viewpoint

For a period of time following Charles W. Eliot's papers read before the De-

partment of Superintendence of the National Education Association in 1888 and 1892, there were many efforts to "shorten and enrich" school programs by departmentalized instruction. This specialization of teachers appeared to be a desirable next step following the grading of schools. Enthusiasts carried this plan from the grammar grades to the elementary grades, but fortunately this attempt to overcome the lack of teacher preparation is apparently on the wane. Not only have elementary-school staffs found this plan incompatible with their philosophy of education but also high-school staffs are beginning to experiment with the breakdown of subject-matter barriers. One of the chief dangers of the plans superimposed upon school organizations is that of retaining them when they no longer serve the best interests of the learner.

In 1919 Cubberley (8, pp. 458-459) wrote:

Up to 1911 or 1912 the question of educational reorganization remained largely an academic question, though being increasingly subjected to critical analysis by practical school men to see if the reorganization proposed could be carried out in practice.

State Teachers College   EQUAL LEARNING OPPORTUNITIES   Terre Haute, Ind.

Exploitation of Childhood

hings not touched with joy drop dead out of memory.
JOHN MASEFIELD *In The Mill* (p 98)

...nal Education

...enerations have passed
...dual with cross-eyes was
...much cruelty because su-
...ple believed it to be the
...bitation by an evil spirit,
...ly beat the poor patient
...ntion of driving the evil
...im. In other times it was at-
...inhabitation by an angel or
..., and cross-eyed people were
..., since they obviously had the
...ral power of seeing in a di-
...nt once" (9). Less than two
...d years ago women were tried by
... of intelligent people for "turning
... a black cat and jumping through a
...ole." These and many other beliefs
... curiosities of the human mind existed
...n the so-called dark ages. Yet today there
still exist in the minds of many parents
and teachers such uncritical beliefs as,
"Children who cannot read are slow of
thought," and "There is something sinis-
ter about left-handedness." In addition,
there are some educators who believe
that basal reading materials, phonics,
and systematic instruction are pedagogi-
cal relics, while others seem to worship
at the shrine of regimented instruction,
poverty-stricken curricula, and low
standards of teacher preparation. Such
situations might cause the critical ob-
server outside the teaching profession to
wonder whether education has just passed

out of the dark ages. If the reading pro-
gram of the school is to contribute as it
should to pupil development, we must
avoid traditional superstitions on the one
hand, and refuse to accept unproved new
theories on the other.

Among reports and scientific investiga-
tions, there may be found many evidences
of exploitation of childhood. Short years
ago legislation was enacted to do away
with child labor. Frequently these chil-
dren were engaged with tasks that re-
quired only gross bodily movements with-
out undue emotional strain in situations
that sometimes were well lighted and
well ventilated. The social and health
values of securing public support for
such legislation is unquestioned but un-
fortunately other conditions have gone
by default.

In some places one still finds five- and
six-year-olds, many of whom are not
ready for the work imposed upon them,
fidgeting over long rows of flat-top desks
illuminated with one to four foot-candles
of light and living in an emotionally
tense situation for four or five hours per
day in very poorly ventilated rooms.
Most of this is done in the name of read-
ing, which requires a high level of eye-
co-ordination, sustained attention to the
details of symbols, interpretation of the
significance of the writing, and a fairly
high degree of social adjustment. It is
true that some survive this ordeal but the
burden of proof is on those who encour-

23

Pupil classification and promotion policies are inextricably associated with notions regarding child development, school marks and report cards, general objectives of education, professional premises, selection of instructional materials, selection and in-service preparation of teachers, etc. To leave an executive order that all pupils are to be promoted, without due consideration of provision for learner needs, is to deal with an isolated symptom. The removal of the symptom leaves the cause of the undesirable condition to be manifested in other ways. Double promotion and nonpromotion of pupils prove to be inadequate adjustment procedures, because the emphasis is on adjusting the learner to the school rather than the school to the learner.

SCHOOL MARKS AND HOME REPORTS

Not many years ago, a grade of eighty-seven and two thirds per cent might have been reported at the end of a month's or six weeks' period. The use of letter grades was adopted thereafter and still persists in some schools. In regard to either procedure, the same general notions were basic. A given pupil was graded in terms of the class average. In fact, the letter-grade system was based on a misinterpretation of the normal curve used in statistical procedures. The fact that classes vary in abilities somewhat as individuals vary did not deter the application of the normal-curve principle to grading

Any system of school marks and home reports that compares and contrasts achievement of a given individual with that of others in a group is likely to produce disastrous results. In the first place, personality needs are usually not recognized. The pupil is marked only on the "three R's" or "subjects" stemming from them. Secondly, achievement in terms of mental capacity and other factors is not given the consideration it merits. It has been the writer's experience that a bright child may loaf through his

work, "earn" an "A" grade, and receive a reward of a bicycle or some similar *extrinsic* reward from well-meaning parents. On the other hand, a dull child may work doggedly at drills that are meaningless to him, "earn" an "E" or "P" grade, and receive perhaps corporal punishment from his parents for low grades. Such a system of school marks and home reports may be compatible with traditional notions, but the results and implications hardly square with modern notions of enlightened educators.

METHODS OF APPRAISING GROWTH AND NEEDS

Traditional education—as characterized by a variety of practices commonly found—has been further entrenched by rather meager appraisal devices. In traditional schools, the major attention has been directed toward testing *academic* achievement. Tests and measurements most frequently used have paralleled the traditional outlines of school subjects. In this sense the validity of the tests for the situation in question cannot be open to serious criticism, but it soon became apparent that the misuse of standard tests resulted to a degree in test-author dictation of the curriculum. Teachers tended to teach only that in which their pupils were to be tested.

In some schools, the practice of administering standardized tests at the end of the year has become traditional. For some school situations, the test is the sole criterion for evaluating the teacher! Others attempt to justify the end-of-the-year administration with the statement that the results will be available in the fall. In general, it appears to be traditional to make administrative rather than instructional use of standardized tests.

In many traditional schools, some use has been made of intelligence tests. Sometimes, however, no distinction was made between the results of group tests and those of individual tests or between

age the situation to give the answer in terms of cost—both physical and emotional Until more scientific evidence is available, it would appear reasonable to substitute an enriched program of music, art, practical arts, science, dramatizations, and language activities for much of the present instruction in reading at the five-, and possibly the six-year-old levels

Exploitation of childhood is evident when children are forced to confine their activities to "learning to read" In some instances, this is fruitless because the pupils cannot profit from this forced feeding. In general, educators should keep in mind the broad objectives of education

In many ways education in general has improved with the times. However, certain fundamental changes are being brought about very slowly, because superficial changes and fads do not modify the basic premises upon which they are operated Until these basic premises are revised, fallacious procedures—some extremely detrimental—will persist in classrooms. Generally speaking, a given classroom cannot be described as *either* traditional *or* progressive Instead, there are many shades of practices varying between the either-or. In order to evaluate some of the problems confronting educators, a brief description of traditional education follows

REGIMENTED INSTRUCTION

In traditional schools, the instruction was provided on the assumption that every child was to climb the same curriculum ladder. Objectives were set up in terms of grade levels Each grade level represented one rung in the curriculum ladder The goal of the teacher was to get the *class* ready for the next rung of the ladder Some children had to stand on a rung with the *rest of the class* and go through "educational" setting-up exercises in spite of advanced achievement. Those who could not reach the next rung were kept on the same one by

a device called nonpromotion. Others who could just reach an upper rung were boosted by the device called "passed on condition." Quite often, the teacher and the upper forty per cent of the class were the only ones "to cover the course of study!" In addition to the use of a single curriculum ladder for reading instruction in traditional schools, there was the very real possibility that this ladder was too short in the sense that "systematic" instruction was terminated at the third-grade level or, at best, at the sixth-grade level.

Too often there appears to be a tendency to accept the general thesis that somehow education should ultimately fit a pupil to a prescribed program There has been little interest in attaching educational values to elusive items such as *self-realization*, *human relationships*, and the like However, even in traditional schools, some attention is, of necessity, being given to the need for studying the learner and the social structure of which he is a part By such means, adjustment and change will be made in the curriculum and, probably more important, in viewing and appraising the curriculum

PUPIL CLASSIFICATION AND PROMOTION

In the so-called traditional schools, a diversity of practices exists regarding the classification and promotion of pupils. In the more extremely outmoded situations, from fifteen to forty per cent of the first-grade pupils are *not promoted* to second grade because they cannot read; pupils are admitted to first grade with chronological ages as low as four or five years, pupils with language or general handicaps may be found in second-grade classrooms at the age of fourteen years; many pupils who experience better-than-average success with the school subjects are double promoted; and so on. While this may be a description of an extreme type of situation, nevertheless some of these results of school policies may be found with a minimum of investigation.

THIS IS WHERE IT HAPPENED   *Yonkers, N.Y.*

Bertha Smith

instruction as though it had a subject matter of its own. In this sense, the objectives of traditional reading instruction were too narrow to meet life needs.

Language Arts. The objectives of traditional reading instruction fell short of reality in another way: reading instruction was not geared in with instruction in speaking and writing. Upon admission to Grade One, all children were initiated in the learning-to-read process without benefit of an appraisal of oral language facility. Then again, elementary-school English and spelling were divorced in the traditional schools. To make matters worse, writing skills and abilities were divorced from reading. This breaking up of language into separate compartments for instructional language purposes made integrated language development a remote possibility.

READING READINESS

In spite of differences in readiness for reading and in reading abilities at the first-grade level, there is considerable variation in practices among traditional schools. At the present writing, too many schools are being operated without recognizing the gains made in professional understanding of reading readiness. In these schools, *all* children are "put through their paces" in preprimers, or sometimes even in primers, upon admission to the first grade. There are schools today in which preprimers are not included among the available basal reading materials and where attempts to read the primer and first reader are required of all first-grade pupils. Then there are schools where *all* first graders, regardless of superior ability, are "put into" basal reading-readiness books for a given number of weeks before being "put into" the *required* preprimers, primers, and first readers. The practices described up to this point are unadulterated regimentation. At the other extreme, schools may be found in which a nonreading curriculum has been set up for *all* first graders. This practice also can smack of regimentation.

Practices among schools vary in another way: the attention given to a well-rounded reading-readiness program. In some schools, attention is given almost exclusively to mental readiness. Too many schools are not characterized by

verbal and nonverbal tests For example, some group tests of intelligence place a premium on reading ability and, therefore, are not acceptable measures of reading capacity for pupils with language handicaps As a result of this misuse of intelligence tests, most, if not all, pupils with reading handicaps have been "proved," in an erroneous manner, to be dull Stemming out of the psychological and educational testing movement has been the use of reading-readiness tests In regimented schools, neither reading-readiness tests nor intelligence tests can be used very effectively

A paucity of standardized indexes to personality development has resulted in some neglect of this important aspect of child development in the elementary school Good use has been made in some schools, however, of anecdotal records, informal inventories, and other informal techniques Significant progress is being made in this area

Traditional Reading Instruction

Traditional instruction in reading has emphasized *learning to read* in the primary grades This approach to reading instruction has been based on two fallacious assumptions First, it has been assumed that if sufficient *drill* were imposed upon all children in the primary grades they would know how to *read to learn* in the intermediate and higher grades This emphasis on *learning to read* placed a premium on reading drills and, according to unbiased investigators, has caused reading to be one of the most disliked subjects in the elementary school Second, it was assumed that *the* place and time to teach reading was in the primary grades This point of view caused teachers to minimize the need for reading instruction in the intermediate grades and to dismiss the topic from any consideration in secondary schools When junior- and senior-high-school enrollments rose sharply during the 1920's and 1930's, secondary-school teachers were caught unprepared to meet the problems of how to teach pupils who could not use reading as a learning aid In short, traditional schools emphasizing learning to read in the primary grades have been found to be operating on assumptions that do not square with facts regarding the learning of skills in functional situations and the perennial nature of the reading problem.

Grade Levels. Traditional schools have given initial emphasis to systematic instruction In actual practice, however, the concept of systematic instruction has operated to produce regimentation and therefore has defeated the whole idea basic to it Elaborate charts were prepared to show the systematic development of reading skills and abilities by grade levels This grade placement of curriculum items was interpreted in traditional schools as requirements for *all* children at each grade level. In extreme types of traditional schools, all the children at a given grade level were given the same textbook prescriptions, regardless of capacities, needs, or interests The reported evidence is crystal clear that the resulting regimentation produced a distaste for reading activities; a high percentage of pupil failures, especially in first grade; and the need for a disproportionate amount of remedial work

Restriction to Specific Skills. The objectives of traditional reading instruction were restricted to the development of specific skills and abilities. For example, the objectives were stated in terms of locating information, selecting and evaluating information, organizing information (verbally by means of outlines and summaries), comprehending, and remembering The development of comprehension suffered because only basal readers were used for the development of skills, and reading instruction was isolated from art, music, science, social science, and mathematics An attempt was made to compartmentalize reading

couraged to live interesting lives—not just academic faculty members who have never learned to play. They have teachers who know how important it is that children share in making the school the good place to live and work in a school ought to be.

Challenging Data

Since it is being demonstrated that reading deficiencies can be removed, research workers in many fields have had their imaginations fired to the point of investigating the symptoms and possible causes of different types of reading difficulties with a view to establishing preventive programs. Preliminary data have spotlighted certain problems for further study. Recent researches in the field of reading have uncovered data which would make it exceedingly difficult for professional educators to justify certain school policies before a group of enlightened parents. Some of these data which should blast us out of our professional lethargy are summarized and discussed briefly in the following paragraphs.

SEX DIFFERENCES

Boys comprise from sixty to eighty per cent of the retarded reading population. Although the problem of sex differences is not fully understood, observations and data indicate that (1) in some areas girls are promoted on lower standards of achievement than boys are; (2) there is a need for books (especially in the primary grades) written to challenge the interests of boys; (3) girls use reading in their play activities more than boys do; (4) there is probably a need for more men teachers in the elementary schools; and (5) on the grand average girls mature earlier than boys in certain functions involved in reading.

NONPROMOTION

From eight to forty per cent of the children in the first grade fail to be promoted, the average being somewhere from twenty-five to thirty-three per cent. By and large, promotion in this grade has been based upon reading ability. In other words, children are *failing to meet the adult standards set for them*. It appears that the higher the entrance-age requirements for the first grade, the fewer the failures. Here again, children need to be saved from the traditions of our forefathers. Public support of schools was first secured so that children might learn to read the Bible, later to further the development of nationalism, and so on—the basic idea was to teach children to read for purposes dictated by adult ambitions. As a result, more children have been sent to school, and upon entrance they were expected to learn to read. In short, the parents have judged schools too much on how soon their children were taught to read.

There are still numbered among parents and educators those who believe that the solution of reading problems lies in bigger and more thorough first-teaching and remedial programs in the kindergarten and primary grades. From this point of view, reading is something that must be acquired at all costs. It is thought that, even though children learn to talk without being forced artificially, they must be forced to learn to read. In 1931, Elizabeth Irwin modestly asked, "Why pay a [high] price for strawberries in February when you can have them abundantly in June at moderate cost?"

Studies of nonpromotions provide one important clue to the situation. Grade one is typically the greatest failing grade. Further study of the problem reveals that achievement in reading is the chief basis for promotion to second grade. That this condition can be remedied is being demonstrated by several school systems in this country, both large and small. Since it has been demonstrated also that when certain learning conditions are met, five-year-olds can be taught to read, it would be pertinent to appraise promotion policies by checking

practices beyond the era in which the Standard Revision of the Binet-Simon Tests of Intelligence were heralded widely as a panacea for all ills At the other extreme can be found schools in which all measures of intelligence are banned In traditional schools characterized by regimentation very little attention can be given to the emotional aspects of readiness for reading.

REMEDIAL AND CORRECTIVE INSTRUCTION

The history of American education is replete with examples of efforts to correct some of the faults of traditional regimentation with remedial and corrective instruction In many school systems, the crest of the remedial reading wave reached its greatest height during the 1930's Apparently the traditional practice was to offer special help to those pupils below the class average Since reading ability often was not related to reading achievement in the interpretation of test scores, the fundamental problem of retardation resulting from regimented instruction was not revealed

Evidence has been obtained by the writer to the effect that there may be as much retardation among those pupils who achieve at or above "grade level" as there is among those who achieve below that level In fact, in one school system where the policy prevailed of giving special help only to those who were below grade, retardation was found to be predominant among those who achieved at or above grade

Tradition may cause educators to operate on either-or premises which do not square with actuality A pupil cannot be classified as either at or not at grade level with the implication that he is retarded if he is below that level In a given class or grade, pupils can be expected to vary widely in achievement, and, furthermore, their ratios of achievement to capacity for achievement give additional evidence of the complexity of variations

THE CURRICULUM

In some ways reading has been well taught in traditional schools. Even with regimentation or varying degrees of differentiation, however, the emphasis has been on *how* to read rather than on *what* to read. Reading goals have been described rather narrowly, tending toward the mechanic, rather than in terms of human communication with its semantic, or meaning, emphasis

The "three R's" are the foundation on which the traditional school has been built. These have been tried in many ways and found inadequate In the first place, reading instruction, for example, cannot be improved in the direction of larger goals by sheer provision of more time and, therefore, more reading Revision of time allotments does not appear to be the solution to the problem of how to improve instruction. Secondly, personality needs are not likely to be met in a school situation where mastery of the "three R's" is the chief goal of instruction

The situation regarding respect for the uniqueness of each individual has been well summarized by Professor W Carson Ryan (11, p 21)

It can be done, then, in schools—this business of helping children and youth through difficult times to be able to live more richly as individuals and to create a better human society But it means a different kind of school and a different attitude toward teaching and learning than most of us still have It means considerably less emphasis on intelligence testing and "homogeneous grouping," and much more on finding out what children can do in a variety of areas of activity, alone and together In a good modern school each youngster is thought of as uniquely different from every other—as indeed he is—but also as a cooperating member of a group which, like the larger democratic society of which it is a part, is all the stronger because it is composed of individuals each of whom is an independent person Good schools have their classrooms pleasant to look at and enjoyable to work in Good schools have teachers who are fine resourceful folks who have been en-

cators and by misguided parents. Society has charged educators with the responsibility of studying child development and of bringing their interpretations to parents. No one else in the community is prepared or paid to do this job. Until educators face this responsibility squarely, children will continue to be sacrificed at the altar of ignorance and stupidity.

In the May, 1940 issue of the *Journal of Exceptional Children*, a cogent statement by Dr. William H. Kilpatrick is quoted:

Did you ever hear of a three-year-old child *failing* at home, or not being allowed to become a four-year-old, because he had not been successful at being three years old? No, at home a child learns because of his interest, and it is not until he gets into school that someone assumes the right of telling him what to be interested in.

Administrative discussions leading to the decision to have *no* failures in first grade is equivalent to an attempt to cure a symptom without dealing with the cause or causes of the difficulty. To fail or not to fail is not the fundamental issue. The curriculum must be based upon pupil needs, interests, capacities, and abilities. Instructional procedures must be based on a study of pupil differences as well as likenesses. The teacher must conceive of her function primarily as one of guidance. It is for these reasons that emphasis should be placed upon fundamental premises rather than on the symptoms of pupil failures. Pupil failures are teacher failures to provide adequate guidance. Faulty guidance arises from the "beliefs" that teachers translate into practice. These beliefs can be studied by an observation of the quality of rapport in the classroom, the use or misuse of basal textbooks, the emphasis on critical thinking or on memorization, the presence or absence of social situations for the development of language skills and abilities, the restricted or limited supply of instructional materials such as books, the use of community resources, the extent to which the teacher guides the pupils in the sound development of a unit of activity or the limiting of "learning" situations to summaries of abstractions or verbalisms on a multitude of topics, the presence or absence of learner purposes, the quality of learner goals, and so on. General administrative orders to *reduce* or *eliminate* pupil failures have about the same effect on the school situation as the administration of morphine or a local anaesthetic for a toothache. The symptom has been treated but the cause persists. Failures are reduced to the degree that basic school premises are identified and revised in terms of the facts of the learning situations.

PROMOTION SCHEMES

Double standards of promotion have been found in most of the first grades of the nation, children being admitted to first grade on the basis of chronological age and promoted on the basis of reading achievement. To operate on this basis one would have to make the fallible assumptions (1) that every child has reached a certain level of development at a given chronological age, which insures success in reading, and (2) that a significant number of children at that age would gain a minimum prescribed amount in reading power. Since children, as well as men, defy prescription, grade one has become the greatest failing grade.

In a discussion of "School Practices that Help and Hurt Personality," Willard S. Elsbree points out some of the significant defects in the premises of those who adhere to outmoded practices of promotion (5, pp. 28–29):

The grade system and the promotion requirements which accompany it fail to provide adequately for many human wants. To illustrate, the grade and promotion scheme now in vogue puts a damper on the craving for success for an appreciable percentage of the pupil personnel and invokes a penalty out of all proportion to the nature of the child's failure. Although it must be admitted that some failure experiences in life contribute to growth, they must not be so overwhelming

"SCIENTISTS"

Jesse B. Dotterer   *Upper Darby, Pa.*

into the types of reading programs, the classroom administrative procedures for recognizing individual differences, the preparation of the instructional staff, the adequacy of instructional materials, and kindred items In the meantime, it must be admitted that many children are failing to achieve that which adults expect them to achieve with present means

In 1935 Horn and Chapman pointed out the incongruity between school laws *regarding* the admission of children to the first grade and the facts of variability (6, p 24)

The laws of every state specify the age at which children must be admitted to the first grade Such provisions go counter to ordinary practices outside the school Children are variable They do not walk at a given age, or talk at a given age, or enjoy foods in a precise series adjusted to the months of their growth Children vary in maturity, in physical development, and in mental growth. Yet in this important matter of school readiness the law is uniform A child who has reached an age within three or six months of six years at the time school opens is, according to most statutes, prepared to learn to read, write, and cipher

While legal restrictions do not give adequate consideration to human variability, justice can obtain for childhood in school situations where instruction is differentiated So far as the writer is aware, school laws do not state that all children must be taught to read upon admission to the first grade. That interpretation has been made by some edu-

In a few very large schools with several sections to a grade, ability grouping serves to mitigate the hardship to the bright, but in the great majority of institutions such grouping is neither practiced nor practicable. Administrators explain that in such cases the needs of the brightest are met by enrichment or the provision of more advanced instruction within the regular class group. But such an ideal can be realized only to a very limited degree by the average teacher confronted with thirty or forty young children of highly diverse capacities and needs. The writer has encountered more than one boy and girl with a mental level of nine or ten years whom the school had as yet made no effort to teach reading. In a typical class entering first grade around the legal age of six, only one in a hundred will be so mature. Many of these brightest youngsters have contrived to pick up reading with a minimum of assistance before entering school. When the teacher discovers this fact, such children are often assigned to a higher grade. But parents that heed the advice of educational authorities to leave all such instruction to duly trained teachers often conscientiously discourage early efforts at reading. When this happens, their child may find himself intellectually alone in his entering group, but the fact that he has not already learned to read is taken as evidence that he is among his peers. The school then continues to withhold from his eager mind the key to the storehouse of human knowledge because his six-year-old classmates are for the most part too immature to profit from the printed page. Unhappily, the more modern and "progressive" the school in other respects, the more apt is this situation to arise

INTELLIGENCE LEVEL

Although it has been convenient to dub retarded readers as dullards, the data indicate that from sixty to eighty per cent of these pupils have normal or superior intelligence. In other words, no one intelligence level has claim to all retarded readers, and so-called remedial teachers should be the ablest in the school system if a thorough understanding of reading difficulties is to characterize the work. Obviously, many retarded readers have the capacity to achieve but have not done so because

desirable learning conditions have not been developed.

REVERSAL ERRORS

Only about ten per cent of the reading difficulties are characterized by reversal or orientation errors (i.e., the saying or reading of *saw* for *was*, *on* for *no*, *bone* for *done*, *how* for *who*, and the like). This finding is especially significant because this item has laid almost sole claim to the attention of investigators in the past. Recently such confusion of word forms has been prevented by beginning initial instruction in reading when the child possesses a general readiness for reading, by emphasizing *purposeful* reading, by making him versatile and independent in word perception, by helping him develop more efficient patterns for the visual processes involved in varying reading tasks, and by kindred procedures.

READING INTERESTS

Approximately fifty per cent of the adult population has been found to be sterile as far as reading interests are concerned This problem becomes increasingly serious with added hours of leisure time and greater demands for literate people in occupations which did not exist twenty-five years ago.

READING READINESS

The problem of reading readiness is being studied by both practitioners and research workers in specialized fields. As a result, our concept of reading readiness has been expanded to include physical and emotional preparedness as well as mental readiness for specific programs Individual *development* rather than subject matter prescribed for memorization is rapidly becoming the chief concern of parents, teachers, and specialists.

Summary

Regimentation is one of the several basic causes of language deficiencies with

as to produce discouragement and despair. If they do, they cease to be educative. In order to profit from failure, a person must understand the cause of failure and see what needs to be done in order to overcome it. Seldom do elementary school pupils understand the chain of events leading up to the experience of nonpromotion. Even with adults, the nature of failure is of great consequence. All of us are acquainted with persons who have lost their zest for living because of some cataclysmic failure. Perhaps they lost their money or they were fired from an important job. Some of these individuals became negative members of society, lacking faith in themselves and in the world round about them. Like span of interest, one's ability to adjust to thwarting experiences of failure ordinarily increases with age and it is unreasonable to expect children to accept nonpromotion, often a major disappointment, with equanimity and poise

Similarly, the graded system is out of harmony with the principle that the school should provide opportunities for all to receive recognition, approval, and admiration. When as many as ten per cent of a group are barred from promotion, one can scarcely claim that this principle is being adhered to. The philosophy implied in the graded system is that a proportion are doomed to failure

Demotions or nonpromotions do not solve the educational and social problems presented by children whose achievement levels place them below the average of the class. To ask a pupil who has first-grade reading ability to repeat seventh-grade work may offer no solution to his problem. Such procedure would be similar to asking a child to repeat algebra because he did not understand the division of whole numbers

Recently a pupil was brought to a reading clinic because he had failed to achieve fourth-grade work. A somewhat thorough check showed him to have high-normal intelligence, normal vision and hearing, right-eye and right-hand preferences, no record of serious illness, normal interests and enthusiasm, and a deep desire to read with greater facility. By using a well-graded series of interesting readers, it was found that he could read only primers with any degree of ease and satisfaction. In this case, the boy was not a "word-caller" but a "word-yeller," for he blasted the ears of the examiner with his reading attempts. When words were presented to him in isolation, he made random errors, correctly identifying ninety-five per cent of the first-grade words, sixty per cent of the second-grade words, and thirty per cent of the third-grade words. In the case of this boy the following items stood out:

1. Repeating fourth-grade work would not solve his problem because he needed materials at about the primer level of difficulty. Until he learns to read with satisfaction, there is little hope for his achievement in arithmetic, social studies, and other fields where reading ability is essential

2. Since he was mentally alert and aggressive, his retardation could not be explained by a lack of capacity

3. He should be permitted to remain with his own group in order to maintain an adequate social adjustment.

4. Practice had made him perfect that which he had practiced, namely, word-by-word reading in a strained, high-pitched voice and with a low degree of comprehension (aimless word-calling). It would not be expecting too much to bring this boy up to the average reading ability of his class, if the teacher were to provide him with challenging materials on his own level of achievement, and if his power of comprehension were developed through purposeful reading.

Double promotions too seldom solve problems presented by pupils whose achievement places them at the upper end of the class distribution. Fortunately, the attempt to improve the teacher's pedagogy by eliminating such pupils from her class is rapidly becoming history.

In a recent plea for accelerating the bright pupil, Professor Noel Keys points out another type of lock step in education that is brought about by the policy of promotion by age (7, pp. 249–250):

Attempts to Break the Lock Step

Challenges to the Status Quo

A pioneer school was the prototype of the typical rural school of today As populations were concentrated in certain areas and as interest was heightened in a basic education, plans were devised to care for increasingly large numbers of children. Graded schools came into being and have become the traditional elementary school of today.

The development of the graded school system introduced a lock step which has been a "constant peril in education" Schools in which the rigid grading of children has been adhered to are characterized by a high percentage of pupil failures and overageness; by undesirably large classes; by a home-report marking system which emphasized achievement in terms of class averages instead of individual development; by a curriculum prescribed for all children; by a regimented use of basal materials of instruction; by an overemphasis on grade placement of the curriculum rather than systematic sequences, by a time-allotment type of administration, and, in general, by very little attention to individual needs and interests

Progress in breaking the lock step in education is slow but certain In general, two approaches have been made to the problem one, in school administration;

the other, in the classroom The first involves a whole school system as a unit; the other, the classroom as a unit. This chapter deals largely with plans of a general administrative nature, and primarily with those involving the organization of the elementary school. A discussion of the more recent approaches—differentiation within the classroom—is presented in a succeeding chapter.

Essential elements in the development of a sound education program are administrative policies which make possible the selection of competent teachers. the continuous development of curricula in terms of learner needs, the development of a school organization in terms of the local situation, and educational guidance for the individual. Too often, administrative plans fail to get below the surface of educational problems.

Overcoming regimentation in a traditional elementary school requires a reorganization in basic concepts and thinking as well as changes in administrative procedures. This involves a reappraisal of the function of pupil classification, a review of the needs of the "whole" learner, a revision of concepts regarding the curriculum, and a re-evaluation of the role of graded materials of instruction. In short, a reappraisal of a basic philosophy of education looms large as an essential.

At the beginning of the nineteenth century grading was concentrated upon

which educators are being concerned. Perhaps the world dictators can achieve temporary military successes through regimentation Educators, too, find that fire and air-raid drills, but in the peace of a school situation differentiation rather than regimentation is imperative

A good school is an evolution because it is staffed by those who seek the truth At present, we are entering a scientific era of education when points at which

childhood is being exploited are identified The above brief discussions are only a few of the current problems which are challenging the attention of scientifically minded investigators It is important to note that some of the most practical and needed research is being reported from public schools To the degree that child development is studied by the classroom teacher, the learner will be freed of adult notions of how, what, and when he should learn.

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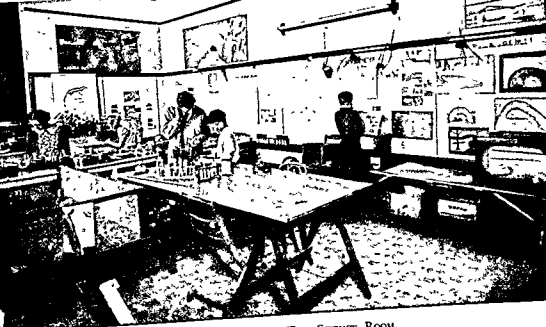
THERE'S PLENTY OF READING IN THIS SCIENCE ROOM.   *Oswego, N.Y.*

Ralph W. Suetman

1880, and United States Commissioner of Education, 1889–1906, waged an almost ceaseless war against the lock step in education. He advocated a highly flexible promotion system which permitted the frequent reclassification of pupils during the school year. The crux of this plan was the breaking down of the school year into four quarters of ten weeks each, with the possibility of promotion each tenth week. He was also influential in establishing kindergartens Harris sensitized educators to the undesirable grading of pupils, threw new light on the need for revitalizing instruction, and established the first public school kindergarten in the United States. Another superintendent, W. J. Shearer of Elizabeth, New Jersey, instituted a similar plan of classification and promotion

THE PUEBLO PLAN

Preston W. Search, Superintendent of Schools at Pueblo, Colorado, from 1888 to 1894, is credited with having fathered the first plan for returning to the individualization of instruction. The development of the Pueblo Plan was the first echo from damaging charges leveled

at class instruction by William T. Harris. Search developed the Pueblo Plan, in part, because of a criticism of the amount of home work required.

In essence, this plan maintained the regular class organization but substituted individual activity guided by the teacher for group recitations prepared outside regular class periods. One salient feature of the plan was the adjustment of time needed for completing a course of study to the capacity of the learner, by permitting the pupil to progress as rapidly as he could. This plan was not used widely partly because no set of techniques was developed for putting it into effect.

THE BATAVIA PLAN

A plan for coaching "laggards" was developed by Superintendent John Kennedy of Batavia, New York, in order to make use of inordinately large classes. This plan, initiated in 1898, retains the organization and methods of the class plan by using two teachers in each room, one to conduct class activities and the other to supervise study activities. Because of the benefits accruing to the laggards, the system was extended.

two foci children and subject matter. By the end of that century, the individual was well on the way to being rediscovered

GROUP CLASSIFICATION

The development of the concept of individual instruction is ably summarized by Reagan (61, pp 204–205)

Until the last one hundred years or thereabout, individual instruction was the common, though not universal, practice in the schools Pupils were not organized into classes for instructional purposes, but each pupil received his individual assignments, which he prepared and "recited" to the teacher

The "individual" aspect of this procedure may have been commendable, but the weakness of the procedure lay in the fact that there was little or no "instruction" in it With a group of any considerable size, it is obvious that the teacher could not devote much time to each pupil's "recitation" The brief time allotted to each pupil was spent, for the most part, in hearing him reproduce—often, no doubt, verbatim and without any true conception of the meaning—the textbook material that had been assigned him The substitution of group, or class, instruction for this form of lesson-hearing resulted in a decided increase in the effectiveness of instruction Group instruction, however, by no means proved to be an unalloyed blessing, and for several decades there has been a growing tendency to replace it, at least in part, by some form of individual instruction By the term "individual instruction," however, is now meant a vastly different thing from the individual lesson-hearing of former times

Administrative Approaches

It appears that plan number one for differentiating instruction for the masses was the "grade" classification of children followed by the "grading" of a somewhat static curriculum McGaughy (39, p 224) briefs this plan·

The "grade" plan of organizing the elementary school was one of the earliest attempts to provide for individual differences Since the mastery of subject matter up to a certain fixed level of achievement in each grade was the primary objective of the elementary school, the organization into grades was most logical and sensible. If a fourteen-year-old boy could not read successfully or understandingly the material found in the adopted fourth grade reader, it was an accepted fact that he should be registered as a third grade boy

A CAUTION

Regimentation has been a growing peril in American education This chapter is a review of certain attempts, over a period of almost a century, to adjust the school to the learner. In retrospect, certain weaknesses of each plan stand out in bold relief. In prospect, differentiated instruction appears to be a perennial problem that requires the continuous evaluation of basic premises

Some of the plans developed in the past have been superficial in that sheer classroom administration has been overemphasized While effective classroom administration is one of the keystones of an effective program of differentiation, the how of instruction must be evaluated with the what to teach and the when to teach In short, the curriculum must also be differentiated in terms of readiness, or needs It is a superficial plan, indeed, that permits administrative mechanics to take precedence over the, perhaps, more fundamental considerations of aptitudes, needs, interests, etc.

Critical evaluation has revealed erroneous basic assumptions regarding the extreme individualization of instruction inherent in certain plans. Recent emphasis on personality and social development has caused educators to attach new values to class planning and activities and group planning and activities as well as to individual planning and activities Hence, the "logical" conclusion for an educator concerned with differentiation does not lie in the direction of a completely individualized program.

FREQUENT RECLASSIFICATION

W. T Harris, Superintendent of Schools in St Louis, Missouri, 1867–

BURK'S PLAN OF INDIVIDUAL INSTRUCTION

Organization of instruction on an individual basis was championed next by Frederic Burk in the elementary schools at the San Francisco Normal School in 1913. This is generally conceded to be the first carefully organized effort to individualize instruction This plan is still in operation at the San Francisco State Teachers College, but is better known now as the Winnetka Plan.

Burk's individual system is based on individual progress and promotion Class recitations are abandoned and daily assignments are eliminated. Briefly, the important features include grouping pupils on a social- and chronological-age basis, self-instructive textbooks organized by specific-unit goals, individual progress cards permitting an accurate record of pupil achievement, and testing and promoting pupils when work on a subject in one grade is completed. The teacher is freed for individual assistance and

LEARNING THE SOCIAL AMENITIES

Crocker School   Sacramento, Calif
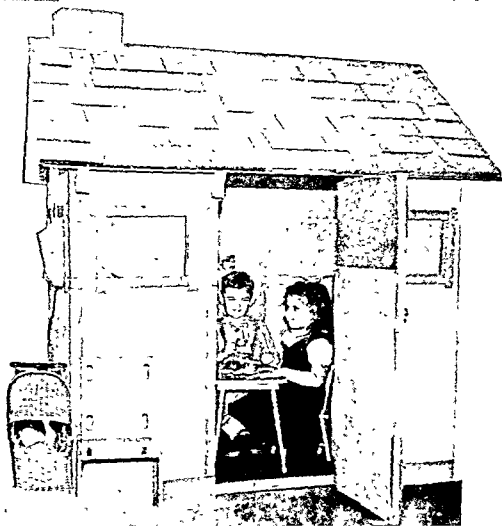
Mr. Kennedy is credited with having introduced the divided-period plan of supervised study.

A brief description of how the Batavia Plan operates was presented in Part Two of the *Twenty-fourth Yearbook of the National Society for the Study of Education* by Superintendent William H Holmes of Mount Vernon, New York In essence, this adoption provides for one hour of individualized activities each day and for one or more special teachers who work with seriously retarded pupils

Monroe and Streitz (45, p 123) point out the fallacy in this supplementary type of instruction

> The purpose of supplementary instruction for the pupils whose achievements are below the minimum essentials is to "level up" the class, and obviously the brighter pupils do not receive much attention This is the weakness of the plan Except when an assistant teacher or coach has been provided for the purpose, the coaching of the laggards in a class has tended to deprive the more capable pupils of their share of the instruction Consequently, whenever this type of adaptation is attempted it should be employed in connection with other procedures which will provide for the other members of the group In general, it should be considered as supplementary to other types of adjustments *

Many of the recent attempts to sidestep uniform courses of study and the lock step in education have their roots in plans of coaching backward children by an assistant teacher Much of the corrective and remedial reading of today is based on the erroneous idea of rejuvenating the five to twenty per cent who are nonacademic as well as the eighty per cent who have the capacity to profit from such instruction A substantial percentage of the so-called laggards do have normal or superior intelligence and therefore may be expected to progress in academic activities On the other hand, some of these retarded in-

dividuals are not retarded in terms of their own capacities and life needs. By means of tests available today, expectancy of achievement can be determined at least crudely. Briefly then, coaching laggards, or any other form of remedial activity, takes care of only a small part of the problem of adjusting the school to the child.

THE PLATOON SCHOOL

Superintendent William A Wirt developed a plan of organization variously known as the platoon, work-study-play, or Gary school This plan was first developed in Bluffton, Indiana, but became more widely known and used after Superintendent Wirt assumed the leadership of the Gary, Indiana, schools.

Although first conceived as a means of improving instruction in terms of a social philosophy of education, one reason for widespread interest in this plan was economy By duplicate sections or platoons, all classrooms and other units are used throughout the day. One group, or platoon, pursues the fundamental subjects in the home room while the other platoon is engaged in activities in the special rooms (gymnasium, shops, library, music, and the like). This also makes possible the special activities without additional cost. In short, maximum use of the school plant is possible along with an enriched school program.

The Platoon Plan, based on partial departmentalization, requires a complete administrative reorganization of the school. Some objectors claim that regimentation is increased. Since this plan was not originally conceived as a means of differentiating instruction, as discussed herein, only brief mention is made. An excellent discussion of this plan may be found in *The Platoon School in America* prepared by Roscoe D. Case (20) and published by the Stanford University Press, 1931 Additional information on the Platoon Plan may be found in the references at the end of this chapter.

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* From Monroe and Streitz *Directing Learning in the Elementary School* New York Doubleday, 1932

mon practice, takes issue with the narrow concept of the "common essentials," with "some common essentials" in isolation, and with the highly mechanical system of goals.

Washburne (97, p. 49) reports that reading, "the cornerstone of the entire school edifice" above the first grade, "fortunately is the most easily individualized." In his book, *Adjusting the School to the Child*, Washburne presents two plans for individualizing basal reading instruction. One plan makes use of materials prepared for use in the Winnetka Schools and others operating on a similar individualized plan. The other plan was that used before publication of the *Winnetka Primary Reading Materials* which involves the differentiated use of well-known basal reading materials.

Difficulties of individualizing instruction for beginners are indicated by Washburne (97, p. 68):

> The most difficult part of the entire curriculum to individualize is beginning reading. The children come to school with no study habits and with none of the tools for learning that can be relied upon in later grades. We rely upon the pupils' skill in reading to make self-instruction possible in grades above the first.

THE DALTON PLAN

A plan for differentiating instruction which has been favorably received, adopted, and commented upon is the contract, or Dalton Laboratory Plan, developed about 1920 by Miss Helen Parkhurst in Dalton, Massachusetts. This plan involves no reorganization of the curriculum which probably accounted for its popularity. The chief value of this plan lies in the freedom of the pupil to proceed at his own rate.

The essential elements of the plan include first, a type of individualization in which permits each pupil to work in terms of his own capacity. Each pupil works at his own speed; second, carefully prepared assignments and sets of directions; third, elimination of time

schedule which throws the responsibility for budgeting time upon the learner; fourth, freedom, in a sense, for the pupil to pursue his own interests and to work without interruptions; fifth, opportunity for the pupil to learn co-operation.

Above the fourth grade, the work is done in "subject workshops" during laboratory periods where all pertinent materials are placed. In this plan, the need for a central library is reduced through the use of reference materials in the laboratory. Each teacher becomes a subject specialist who is free to provide individual assistance when requested. Each laboratory becomes an ungraded classroom. Five laboratory specialists and sets of laboratories are required for each division of from two hundred to two hundred and fifty pupils.

Each pupil contracts to do one job in each subject each month. A job comprising twenty units of work, for the twenty school days of the month, is outlined in advance and the assignments are given to the pupils in the form of procedure sheets. If a pupil completes his first contract before the end of the month, he proceeds with the next contract or is allowed to spend more time on another subject. Contracts in various subjects are controlled so that a pupil must keep all contracts up to date. The work is further motivated and controlled by an individual "job graph" kept daily. Each morning is divided into three periods, the afternoon being used for creative activities. One short period of one half hour or less is designated as the "organization" period. The second is a two- or three-hour laboratory period which is followed by a short conference period. Laboratory periods may be used for individual or group activities as needed. Group and class discussions are included in the conference periods. The teacher becomes a director of learning in specialized areas.

There is much to commend the Dalton Plan over the traditional school organization. It provides for individual

group activities. In short, fundamental reorganization of both course of study and of procedure is required and the whole school is individualized.

THE WINNETKA PLAN

One of the chief limitations of Doctor Burk's plan was that the basic principles had not been developed in a public school situation Two of his former faculty members, Carleton Washburne and Willard Beatty, were called to the schools of Winnetka, Illinois. Under the direction of Superintendent Washburne, a system of individualized instruction has been developed which overshadows all other plans developed to date

In 1926, Doctor William S. Gray (100, p 4) clearly defined five basic principles underlying the Winnetka Plan

They are (1) a clear definition of the essentials of the fundamental subjects in terms of units of achievement, (2) self-instructive, self-corrective practice materials in these subjects, (3) diagnostic tests to measure achievement, (4) individual subject promotions, within certain limits, on the basis of achievement in the fundamental subjects, (5) and large emphasis on group and creative activities during certain periods of the day

The organization of the curriculum is described by Washburne and others (100, pp 15–16)

The curriculum in the Winnetka schools is divided into two parts—"the common essentials" and "the group and creative activities"

"Common essentials" are supposed to include those knowledges and skills which will be used by practically everyone—a certain speed and accuracy in arithmetic, the ability to use the common forms of punctuation and capitalization correctly, the ability to write legibly and with reasonable speed, the ability to read with a certain degree of speed and comprehension, the ability to spell correctly the most commonly used words, information concerning commonly known persons, places, and events, and ability to discuss intelligently the outstanding civic, social, and industrial problems confronting the American people

"Group and creative activities," on the other hand, include those things in which the results achieved by the children may legitimately differ—the appreciation of literature, music, and art; playground activities, assemblies; handiwork of various kinds; projects which are an end in themselves rather than a means to the mastery of subject matter; dramatizations, discussions (again not for the purpose of learning common essential facts); and much of the color materials and background of history and geography.

While there are necessarily many interrelations between these two divisions of the curriculum and while, so far as the child himself is concerned, one merges naturally into the other, in the administrative organization of the schools and the method of treatment these two divisions are fundamentally distinct

As developed by Doctor Washburne and his staff the essential features of this plan include the elimination of recitations, individual and group activities, establishment of groups of units or goals, time variation for individual "mastery of units" in "common essentials," qualitative variation in individual learnings in self-expressive and group activities, self-instructive material, and self-corrected progress tests followed by teacher administered finals This plan also includes the elimination of failures and grade skipping, grade report cards showing progress in fundamentals and in development of social attitudes and habits, forum type assemblies, and committee management of pupil activities In brief, an earnest effort is made to adapt the curriculum to existent individual differences

A similar system of individual instruction was introduced in the Wentworth School of Chicago by James E. McDade This plan uses the regular class period to provide for socialization, flexibility of promotion, and individual needs

This highly individualized plan of education has not been advanced without serious challenges. Kilpatrick (2, pp. 280–286), although willing to admit the merits of the plan as contrasted to com-

or "jalopy" type of school that the proponents of integrated school programs are striving to overcome. Although there is evidence of abortive attempts to translate the basic philosophy of a child-centered school, education is being benefited by intelligent attempts to improve schools in this direction.

This difference between a "child-centered" school and a strictly "prepara-

DIFFERENTIATED CURRICULA

Differentiation of curricula has received wider acceptance in large high schools than it has in elementary schools. However, the segregating of special-class, or nervous, children in the elementary school should involve a differentiation of curricula. Unfortunately, differentiation of this type cannot be found

READING MUSIC   *Yonkers, N.Y.*

Bertha Smith

tory" school is stated by Butterweck and Seegers (19, p 355):

Schools practicing the activity or project method are a practical illustration of the application of the theories of that group of educational philosophers and leaders who insist that the elementary school should be the school of childhood, while the secondary schools should be schools for adolescents. That is, the distinction is based upon child nature rather than simply upon graduation of subject-matter, and the whole school regime is based upon natural action. It is believed by many students that this program would enable public schools to perform their admitted functions in a much more adequate manner

in all such classes although progress is being made at this point.

Differentiation of instruction in terms of pupil needs involves a differential classification of learners, a curriculum reconstructed or tailored to the individual in question, and a methodology determined by the strengths and weaknesses of the individual A program on this broad front cannot be resolved into just another administrative stereotype.

LIMITATIONS OF ADMINISTRATIVE PLANS

A plan designed to break the lock step of mass education must embrace the

guidance, the establishment of pupil goals, and some differentiation in quality of work contracted. On the other side, the status quo of a questionable curriculum is maintained for all pupils, individual activities may be overemphasized, and there is the ever-present danger of adopting an administrative device without due consideration for the underlying philosophy

THE CO-OPERATIVE GROUP PLAN

The latest scheme for organizing an elementary school is the Co-operative Group Plan developed by Doctor James F. Hosic and given wide publicity about 1929. In the writer's opinion, this plan is largely a modification of the Platoon School and departmentalized plans.

Doctor Hopkins (33, p 469) states the fundamental characteristic of this plan:

> The main feature of the Co-operative Group Plan is the organization of teachers within a school into small groups under the guidance of one of its members acting as leader, for the purpose of uniting in the study of their common interests in promoting the welfare of a group of pupils in the light of the accepted curriculum of the school system

SPECIAL CLASSES

Special classes for mentally defective and for superior children are largely products of the twentieth century. The intelligence test designed in 1905 by Binet and Simon for identifying the mentally subnormal has contributed a scientific technique for the classification of pupils on the basis of general intelligence Even before the appearance of revisions of the Binet-Simon test, special classes for gifted children had been initiated The formation of special classes for children at each end of the distribution of intellectual ability and subsequent success of this plan led educators to apply homogeneous grouping to the rest of the school population

In addition to special classes for mentally defective and for superior pupils, special provisions have been established for the deformed, the blind and partially blind, the deaf and hard of hearing, speech defectives, and seriously retarded readers. In fact, many states have provided subsidies for some of these classes before equalizing opportunities for more fortunately endowed children.

ACTIVITY PROGRAMS

For a long period of time there have been schools operating wherein the activities have developed around "projects," "units," or "centers of interest" with the emphasis on immediate child needs Since this type of integration calls for the abolition of a stereotype curriculum with its artificial subject-matter barriers, for the complete differentiation of instruction, and for the elimination of many of the regimented class procedures, the key to the situation is a master teacher with adequate instructional materials The aim of this type of school is to provide guidance for the development of the "whole" child, therefore, greater responsibilities are placed on the teacher to prepare herself to "learn" the "whole" child The orthodox teacher—a "grade" or subject-matter specialist—would have to adjust to an entirely new mode of thinking and of living if she were to participate successfully in this type of school

The activity plan outlined above contrasts with those of traditional schools which are characterized by grade specialists, remedial programs, bell-clanging terminations of subject "periods," frequent switching from one subject to another, retardation, failures, wholesale double promotions and demotions, disciplinary problems, regimented use of basal textbooks, a poverty-stricken curriculum, accumulation of credits, preparation for the next grade, quantitative school marks, extrinsic types of motivation, administrator-dictated teachers' meetings, and teachers who sometimes have met only the minimum legal requirements. It is this "horse-and-buggy"

for meeting individual learning problems. Something constructive has been offered and gains have been made.

4. Issues pertinent to the problem have been defined more clearly by the critical thinking of those in opposition to a given plan. Educational values have been weighed with greater precision. The tremendous amount of effort and thought contributed to the development of these plans causes them to stand as landmarks on the road to better educational programs.

5. Probably most important of all, the basic *premises* of those practicing regimented instruction and those working in the direction of differentiated instruction have been brought into contrast. It is quite clear that discussions of regimentation revolve around *similarities* expressed in terms of class averages, homogeneity, etc., while *differences* are emphasized in discussions of differentiation. Facts appear to be on the side of differentiation.

Summary

Administrative policies should be determined in terms of the type of school organization and of the school program. Administrative devices fall short of actuality unless they contribute to change in classroom procedure. Certain types of school organization tend to hamper teacher efforts to "learn" the individual and to provide guidance in terms thereof. Although administrative policies may be established to make possible the differentiation of instruction, the classroom teacher is the keynote of any plan.

There is an increasing tendency to classify children by chronological ages rather than by grade-groups. When the facts of a classroom situation are appraised in terms of the actual differences that exist therein, a broad program of differentiation can be justified

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curriculum as well as the classification and promotion of pupils It appears, then, hardly conceivable that the so-called "fundamentals" or "minimum essentials" can be defined and written into one prescription to meet either the immediate or the future needs of every child at a given chronological, mental, or social age level

No plan of school organization can be substituted for an able administrator and well-prepared teachers If the philosophy basic to a given plan is not understood and practiced, then few, if any, educational values are likely to accrue for the benefit of the learners. The keystone of any plan advanced to date is the teacher

Most of these innovations designed to alleviate pedagogical ills have been based on opinion, few, if any, have had their beginnings guided by objective appraisals In any event, it is not the grouping or individualization that counts as much as what is done after the classification is made And this is what makes adequate experimental appraisal difficult

There are few, if any, educators who would question the value of individualized instruction However, there are many who would advance substantial reasons against any plan for the complete individualization of even the so-called fundamental subjects. The most desirable plans for differentiating instruction are yet to be developed

In some of the plans reported in this chapter, there is evidence of a tendency to isolate the "tool subjects" so that they are not related to situations in which they will be used Fortunately, this "cold storage" fallacy in individualization has been identified and now finds few defenders

The problem is summarized in the *Seventeenth Yearbook of the Department of Elementary School Principals* (49, p 519)

No administrative scheme alone will solve the problem of individual differences No matter how children are grouped, there will be differences requiring individual teaching within each group Moreover, the contributions which pupils of different abilities and interests can make to the intellectual and social development of a class should not be overlooked Nevertheless, reading instruction may be facilitated by narrowing somewhat the range of reading needs found in the typical school grade

Too often there appears to be a tendency to accept the general thesis that somehow education should ultimately fit a pupil to a prescribed program. It is urgent that a questioning attitude should be focused upon the elementary school which too frequently is designed for the instruction of the average one third in a subject matter which invites critical inquiry Because the first-teaching program has dealt with a content open to doubt but presented with overassurance and has been paced by the average, maintenance teaching necessarily has loomed large, and remedial programs have been spotlighted, giving such work a disproportionate emphasis Pedagogically speaking, first-learning is all important because prevention calls for adequate first-learnings; maintenance-learning is complementary to first-learning, and remedial programs are based on first-teaching techniques. In short, bridging the gap which lies between pupil capacity and pupil ability or achievement requires appraisal of first-learning

VALUES OF PLANS

Certain values have accrued from the advancement of the many plans that have been offered for differentiation of instruction Some of the values may be stated briefly as follows

1 The protagonists of each of the various plans have sensitized educators to one or more of the crucial problems in mass education

2 The advocates of various plans have contributed in some measure to literacy of the public on one of the major problems in education

3 Positive suggestions have been made

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their sadly unprepared colleagues to provide the guidance needed by our elementary-school children. It is the pedagogical anarchist who fails to recognize the fact that a democracy is maintained by evolutionary thinking. There probably can be no gaps between thinking and practice; otherwise there is produced another instance of "vaulting ambitions which o'erleap themselves."

Bases for Analysis. If faulty practices based on mystical beliefs are to be improved, then it appears that the elementary-school principal himself must answer certain questions: First, if teachers are professionally prepared to provide individual guidance rather than to follow a rule-of-thumb procedure of escorting all the pupils of a given grade through the same materials, what encouragement will they receive from the principal? Stated another way, does the principal encourage the teachers to circumscribe their thinking by the grade concept of children? Second, does the principal believe in a library to the extent that he will develop an aggressive plan for the realization of that goal? Third, does the principal require the teacher to cover a certain number of pages or books regardless of the needs of the pupils? Fourth, have the principal and the teachers developed a program for the implementation of the philosophy that instruction should be initiated at a level where the pupil is? Fifth, has the principal assisted the teachers in the determination of the physical, mental, and emotional needs of the pupils, or are all pupils given the same prescription of physical activities, poems, and spelling lists to be memorized? Sixth, has the principal evaluated the school activities in terms of memorization *versus* experiencing? Stated another way, have the school activities been evaluated in terms of pupil purposes? Seventh, has the principal encouraged the development of a teacher-centered administration as a part of a learner-centered school, or are the teachers' meetings, the supervision, and parent-education programs principal-dictated? Eighth, has the principal been guilty of attempts to compartmentalize learning activities? Ninth, does the principal believe in educational guidance to the degree that he has developed with the teachers a systematic means of collecting and using pertinent data? Tenth, does the principal encourage wholesale double promotion to avoid providing an enriched school program? Eleventh, is a policy of demoting all pupils with either general mental retardation or specific learning disabilities used to further an archaic program for the grade classification of children? In short, has the principal assumed the instructional leadership for which he is supposed to be professionally qualified and for which he is paid?

Strong beliefs appear to result in aggressive action. Many of our great grandfathers believed in witches; therefore, otherwise intelligent juries convicted many a woman for turning into a black cat and jumping through a keyhole. If the administrative officer believes in having a gymnasium, then a gymnasium is added to the old building or included in the plans for the new building. If the school principal believes in purchasing seven sets of third-grade basal readers, then those seven sets usually are found in the classroom. If a parent believes that a child should have his teeth checked once or twice each year, then sacrifices are usually made to achieve that end. Not many years ago secondary-school teachers apparently believed they solved the reading difficulties of their students by blaming the elementary-school teachers. Today such problems are nearer solution because a substantial number of secondary-school teachers are believing that systematic instruction in reading is and always will be one of their major problems. Likewise, if a teacher or principal is convinced that to define learning problems one must begin with a study of the individual, then practice takes that direction.

> While actual experience curricula are few and far between at
> present, the number is steadily increasing wherever classroom
> teachers are taken into active partnership in the making of
> the curriculum   ROBERT HILL LANE (33, p 385)

Need for Reorganization

A chapter to discuss a reorganization of elementary schools to meet the needs of the pupils is a frank admission of the nature of the present situation When schools are reorganized to meet learner needs, both parents and teachers are included among the learners and a basic change in thinking and beliefs is required This type of reorganization is based upon three fundamental assumptions First, education is guidance Second, guidance is fruitful to the degree that the needs of the individual are recognized Third, education increases individual differences. In some of the schools known to the writer, these three basic assumptions are violated by requiring all pupils to engage in the same activities whether or not they stand to profit from them

The central idea of this chapter, therefore, will emphasize a needed reorganization of thinking which will permit identification and intelligent care of pupil needs. A reorientation cannot be achieved by a mere rearrangement of pupil desks, by inserting in the school program a period called "activities," by administering a number of new tests, by establishing remedial rooms, by the purchase of a new series of basal textbooks, by designating groups of children by some term other than "grade," or by a sudden revision of home reports Instead,

the first reorganization must be made in terms of the approach to the problem.

False Premises It is the writer's observation that many difficulties experienced by elementary school pupils are caused by pedagogical pagans who appear to seek guidance from wooden idols discarded generations ago by Pestalozzi, Froebel, Sheldon, and Dewey. In consequence, they entertain uncritical beliefs which might be stated as follows "Reading, language, and arithmetic are subjects rather than processes," "Children who cannot read are word blind," "Children with reading handicaps are slow of thought," "All children are ready to read at six years of age;" "All third-grade children have attained the same level of development," "All seventh-grade pupils should study the same science book," and "Literature is to be *studied*" These beliefs, we will admit, are the result of worshiping false gods Those who entertain them cannot contribute to a democracy—a way of living characterized by individual freedom, individual and group initiative, and a maximum of individual development.

Then, too, there are the pedagogical anarchists. These are the members of our profession who would discard immediately all basal instructional materials, who would shun down attempts at systematic instruction, and who, with unjustified faith, would trust some of

likely to progress in this type of activity. In this case it is discouraging to note that neither the teacher nor the principal seemed to believe in guidance because they were unable to produce a single shred of information that would have shed light on the problem.

At higher grade levels in the elementary schools, group tests of mental capacity may be used, but with certain cautions. In the first place, the reliability of a single score cannot be expected to be as high as that taken from a well-standardized individual test. Second, tests which require any amount of reading may be misinterpreted by the teacher in the case of a retarded reader. Many erroneous suspicions of the dullness of retarded readers have been seemingly verified by means of reading tests of intelligence. Third, the mental age secured by means of either an individual test or a group test should not be interpreted as the absolute limit of expected development. Many children have reading ages and arithmetic ages far beyond their mental ages.

LEVEL OF ACHIEVEMENT

A second important type of evidence that should be secured from an adequate appraisal program is the individual achievement level. One of the outstanding needs for reorganization is evidenced in practices by so-called grade specialists. Many teachers take pride in being a third-grade specialist or a fifth-grade specialist. They expect everyone to be average, by ignoring the substantial groups above and below this mythical central tendency. These teachers are great students of averages and are completely unaware of deviations. If they tried to develop a choir, they would select only tenors who would be required to sing the melody. If they were track coaches, they would start every ninth-grade boy to pole vaulting over a bar set nine feet high. If they were tailors, they would try to sell the same suit to each customer. If they were eye specialists, they would fit every child with the same type of glasses. If they were otologists, they would fit all cases of hearing impairments with the same kind of hearing aid. In the field of medicine they call such people quacks; in schools they are designated as teachers of given grades.

If education really increases individual differences and a chorus of differences exists at any one so-called grade level, then the teacher should be assisted and encouraged in her efforts to identify these varying levels of achievement. Once this basic concept is established, there will be less emphasis on remedial reading, remedial spelling, and remedial arithmetic, and more emphasis on an adequate first-teaching program.

It is satisfying to note that many progressive and alert teachers and many clinicians are resorting to subjective tests and informal situations for determining the level of achievement in a given area. It has been found, for example, that very few, if any, standardized tests can be used for determining the level at which instruction in reading should begin. When dealing with elementary-school pupils, a competent teacher or clinician can determine the level of achievement for practical purposes more quickly than by observing behavior on the materials or problems in question. One of the administrative problems, then, becomes that of sensitizing teachers to the need for using teaching techniques for appraising level of achievement.

It is not implied here that the purpose of determining achievement level is limited to the study of those pupils with specific or general learning disabilities. The chief reason for differentiating instruction is to provide equal learning opportunities for all the pupils in a given room. Some third-grade pupils may be challenged with so-called first-grade materials while others will be capable of dealing with sixth-grade science books. Likewise, some may be emotionally mature enough to enjoy reading *Treasure*

Appraisal of Pupil Needs

Among the first considerations is the development of a systematic and continuous program for the appraisal of pupil needs Although standardized tests may be useful for the appraisal of certain group needs, a program limited to such measures would have serious defects For example, the elementary-school teacher has access to no standardized instruments for determining the level of emotional development necessary for the appreciation of poetry, art, or music In a sense all good teaching is diagnostic, therefore, the extent to which crucial needs are identified depends to no small degree upon the preparation of the teacher Among other

"CUTEY," THE SNAKE, SUPPLIES
FIRST-HAND INFORMATION

Victoria Lyles   *York, Pa*

things, an adequate appraisal program should provide evidence on (1) capacity for achievement, (2) achievement level, and (3) physical status.

CAPACITY FOR ACHIEVEMENT

In a well-developed program for appraisal of pupil needs, there is a need for securing an index to capacity for achievement Although the New Stanford Revision of the Binet is probably the best single index to mental capacity, tests are available which can be administered by a well-prepared teacher For example, at the six-year-old level, certain reading-readiness and information tests provide the teacher with fairly adequate data with which to complement his observations In addition, certain data secured from the parents should be recorded in the individual-pupil folder

Recently an eight-year-old boy was brought to the reading clinic because he was suspected of having a specific disability in reading The teacher reported that she had taken him with the other thirty pupils in class through preprimers, primers, and first readers for two successive years, and that he still could not read a preprimer Before giving a single test, an interview with the mother brought certain pertinent data to light. The boy was fairly normal in learning to walk and in teething, but at four years of age he could not use sentences and at six years of age he was still learning to dress himself At the time of his admission to the clinic, he had neither established bladder control nor learned to tie his shoestrings. On a reading-readiness test, he failed completely all but one test, making a very low score on a test of information The data to this point could have been secured by any competent teacher or principal To verify the findings of general mental retardation rather than a specific reading disability, the New Stanford Revision of the Binet was administered and the finding was an IQ of fifty-two If reading is primarily a thinking process, then this child is not

ARTS AND CRAFTS AS A MEANS OF APPRAISAL

Jesse B. Dotterer

gram, and is designed to help too few children in a class.

General Classification and Promotion. Frequently, this procedure is carried to the extreme, resulting in grade overageness; an overemphasis on learning through reading activities; an unjustifiable stress on the mechanics of reading; sterile, isolated reading activities; and another form of learner regimentation.

Departmentalized Multiple Grouping. This plan of grouping in terms of abilities in three or four major school subjects or activities is an administrative plan designed to capitalize on teacher interests and strengths and on typical irregular profiles of individual achievement. The fact remains, however, that individual variations still exist in any one group. In addition, many of the well-known stock criticisms of departmentalized instruction still hold

"Homogeneous" Grouping. This procedure adds regimentation to classroom plans for the school day, contributes to school-administrative problems, makes integration of school activities more difficult, and, again, probably overemphasizes reading as a "subject."

Tentative Groupings for Reading Activities. This is usually done in terms of reading abilities and needs. Those who follow a plan of limiting all reading instruction to small group activities probably do not give adequate attention to individual needs within the group. This can be overcome to a degree, however, by frequent regroupings in terms of class and group interests. Certainly this is one step away from the regimentation that can be observed in many classrooms.

Individual and Small Group Activities It will be noted that in some plans provision is made for both individual and small group activities. This permits individual adjustment to social situations which require co-operation and initiative, attention to individual needs, an enriched reading program for all pupils, and systematic individual progress.

Island while others will evidence enthusiasm for nothing more than A A Milne's *Jonathan Jo*. One of the first steps toward caring for pupil needs is certainly a defining of levels of achievement

PHYSICAL STATUS

Interrelated with capacity for achievement and achievement level is the physical status of the individual Specialized research in this area has accentuated differences existing at any one age level Unfortunately, however, many schools are so organized that the study of the educational implications of certain physical deficiencies has been defaulted For example, the health office is located as remotely as possible from the principal's office. Very few school physicians have received special preparation for their school duties and very few teachers have any information on the types of services available in the health department The school physician and the school nurse should be the closest ally of the teacher if the "whole" child is to receive consideration in the classroom

In the combined files of a school system it is usually possible to find data on the effect of physical deficiencies on school adjustment One eight-year-old boy is disinterested and in the afternoon one eye turns toward his nose because of a kidney infection A color-blind six-year-old is embarrassed and made miserable because he cannot match certain colors in a "cutting and pasting" reading workbook or "busy" activity. A nine-year-old boy with a glandular deficiency is denied his recess periods and is kept in after school because "he is slow in his work." A fifth-grade girl is recommended for a special class because she *cannot learn in activities* which are centered about the blackboard A three-minute check of her health record shows that she now has ten per cent vision; that the year before she had thirty per cent vision; and two years before, seventy per cent vision. An eight-year-old girl is referred for *remedial reading*, when it is found that she has a very serious nutritional deficiency and as a result does not possess a physical readiness for any type of learning situation which requires *sustained attention* Still another case is that of a boy with a serious hearing impairment at certain frequencies which frustrated his most serious efforts to profit from certain music activities Yes, the combined files of a school system give mute evidence that there is a need for this *co-operative* study of physical readiness for learning activities

Experimental Plans

Pacing the progress of all pupils in a class by that of one group is the essence of *regimented* instruction against which our professional leaders have waged a ceaseless war The outgrowth of such practice has been remedial-reading programs, learning disabilities, and emotional maladjustment That these faulty procedures are unnecessary has been demonstrated by teachers who are prepared to understand pupil needs and to *provide guidance in terms of those needs*

A review of the literature on practices in reading instruction provides abundant evidence of universal interest in the problem and of vigorous action designed to equalize learning opportunities in reading situations Progress in this direction is indisputable, although it will be granted that the problem remains to be *identified and defined* in many schools Among the experimental plans for improving reading instruction the following are mentioned

Coaching or Remedial Classes. Undoubtedly, the trend is definitely away from this approach, although remedial procedures to a lesser degree will remain a part of a well-planned program of instruction A remedial program too often places a *negative emphasis* on reading instruction, sterilizes the reading pro-

appraisal procedures, and by socialized discussions.

Mr. Worlton presents a carefully considered experimental appraisal of the program (46, pp. 746-747) and concludes as follows:

A careful study of the values of the experimental procedures in teaching reading, in comparison with those of the traditional plan, appears to give the experimental plan an advantage in the following respects (1) Children of all types—bright, normal, and slow—have better opportunities to learn to read and to read to learn (2) Children read under the stimulus of a personal and vital motivation. (3) The teacher is better able to meet the individual needs and interests of pupils (4) The experimental procedures have greater practical value to the child since they typify more closely the methods of life outside the school. (5) Children like the experimental procedures better (6) Children make better progress in the interpretation of reading materials. (7) A richer program of reading material is provided (8) The money cost for books and supplies is less than that under the traditional plan

WHERE INDIVIDUAL DIFFERENCES COUNT

Jesse B. Dotterer   *Upper Darby, Pa.*

Individualized Reading Activities Under Pupil Leaders Two general types of individualized programs using pupil leaders have been reported one in which the pupils were grouped according to reading abilities, the other on a social-grouping basis Either of these types of plans requires administrative ability on the part of the teacher, careful pupil planning, and adequate reading materials

Teacher Direction of Individualized Reading Activities Except in isolated instances, most individualized programs make use of class planning, individual contributions to class problems or to entertainment, and other socializing situations. In this way individual progress is recognized; an integration of school activities is possible, purposeful reading is motivated, class experiences are extended and deepened, and individual development is not reckoned in terms of class progress and a fixed curriculum

REPORTED PROGRESS

That the regimentation of children for basal reading activities can be broken down in traditional school organizations has been and is being demonstrated by progressive administrators and teachers of public schools in many types of communities

Promotion by Reading Levels Superintendent Vaughn R DeLong's report (24, pp 663–671) is a striking example He brings into consideration the capacity of the pupils, pupil progress, the burden on the teacher, parent reactions, the readability of materials, and the transfer of pupils Superintendent DeLong and his staff developed a workable, flexible plan for "primary promotion by reading levels" rather than on the basis of chronological age alone In short, pupil readiness for successive reading levels—determined largely on the basis of vocabulary—is the crux of the plan

DeLong's plan recognizes individual levels of achievement in reading and individual needs Failures are eliminated in the first two grades, the learner has well-defined reading goals; and differentiation in terms of both pupil progress and curriculum is achieved to a degree. More encouraging, however, is DeLong's statement that the plan continues to be in a process of evaluation and revision.

A similar flexible progress plan has been developed from the administrative angle under the leadership of Leonard B Wheat in Western Springs, Illinois (45, pp 175–183). In this attempt to break with hidebound practice, three groups are formed in each room at the primary level and two groups at the intermediate-grade level Mr. Wheat reports that the plan is accepted by parents, accomplishment is better; children are more interested and happier; and failures and grade repetitions are eliminated.

Co-operative Planning An experimental appraisal of a plan for individualizing instruction in reading was reported in 1936 by J T Worlton of Salt Lake City, Utah (46, pp 735–747) Every educator should read this well-prepared report which reflects critical thinking, intelligent planning, and a reasonable evaluation from various points of view. This work should serve as an inspiration for those in despair All such undertakings require intelligent leadership, courage, and unceasing effort.

The essentials of this program include an inventory of the learner, a rich variety of materials organized around content units, systematic development of basic reading skills and abilities, and a continuous check on individual progress. As a part of the pupil inventory, a study is made of "the general ability, the specific reading difficulties, the interests, and the tastes of the individual members of the class" In addition to basal readers a wide variety of selected materials is made available. Individual instruction, as well as class and small group activities, characterize the procedure. Motivation is achieved, in part, by teacher-class definition of specific objectives, by co-operatively planned study activities and

Grouping for Effective Learning. Kvaraceus and Wiles of Brockton, Massachusetts (32, pp. 264–268), contribute "An Experiment in Grouping for Effective Learning," designed to overcome undesirable features of tripartite grouping within classrooms. They observed that teachers tended to keep the same x, y, z groupings for all activities which violate the basic reasons for the grouping. The new plan called for a classification of pupils from each of three classes into three groups on the basis of their abilities in reading, English, and arithmetic. This divided the three classes into nine groups. Of seventy-five pupils only thirty-eight were found who could profitably remain in one group. Thirty-five were assigned to different groups and two to three different groups. The three teachers used the same centers of interests for all groups but planned the "work for only one achievement level in each school subject." In addition to many other values, "the objective data indicated that more than the average amount of pupil growth was made in the course of the year."

An Individualized Plan. On the assumption that "learning to read is an individual job," Miss Lethal Kiesling (38, pp. 319–327) developed an individualized program for the first-grade children in an orphan's home. "The program was not individualized to the extent that each child always worked alone. It was individualized to the extent that each child's progress was recorded each day, and the group with which he worked the following day was determined by the progress he had made." The chief characteristic of this plan was flexible grouping which permitted each child to progress at his own rate.

Informal Reading. A plan emphasizing the use of individual reading materials has been described by Miss Marie R Conroy of New York City (38, pp 435–441). Thirty-six pupils of one sixth-grade class were grouped into three divisions for "informal" reading. For each group

the teacher selected a chairman who chose two class members for a helping committee. Forty minutes each day were set aside for an informal reading period during which time the teacher gave advice regarding the selection of books and guided the activities in other ways. In addition to written reports, oral reports were given which were pertinent to a center of interest for the class. The investigator reported objective evidence of growth, better work habits, and increased interest in reading.

In addition to the informal reading activities, three forty-minute periods were set aside for "formal" reading instruction. For these activities the pupils were classified into three groups on the basis of reading ability. The same sixth-grade basal reader was used for all groups. Although this factor undoubtedly was compensated for in a measure by the grouping, it is hardly conceivable that all the pupils in a sixth grade can profit from the activities in one reader.

Individual Guidance. The individualization of reading in the intermediate grades in Sacramento, California, is very ably presented by Ray B. Dean (38, pp 557–563). The plan is characterized by a determination of individual reading abilities, a supply of selected books, "simple check-ups" with the emphasis on audience-type reading reports, and individual guidance. Dean concludes: "While the individual plan does not lessen the work of the teacher, it does take away much of the drudgery because pupils are more interested and progress is more apparent."

Homogeneous Grouping. "An Experiment with Homogeneous Grouping in Reading" is reported by Miss Mary B O'Bannon of Berkeley, California (38, pp. 533–538) Three hundred and six pupils of grades three to six, inclusive, were classified into nine groups for reading classes scheduled at the same hour each day. Most of the children went on record as favoring the plan, but serious difficulties were encountered. In

Group Instruction in Reading. "A Plan for Group Instruction in Reading" in Oakland, California, has been discussed by C C Grover and Hazel Johnson (26, pp 92–98) The writers pointed out certain fallacies of a school policy of maintaining a minimum essential standard and described a departure from that policy. The crux of the plan was stated cogently.

Under this policy it is the responsibility of the teacher to accept pupils without comment on their preparation for the work of his grade, make an inventory of their ability and educational achievement, adapt instruction to their needs, abilities, and interests, keep them for a year, and send them on to the next teacher

The essential features of this plan are a relatively small range in chronological age for each grade, excusing from work-type reading those pupils whose reading ages excel their mental ages by one or more years, subdividing the class into three groups in terms of reading ages, and a planned, flexible reading program Objective evidence was presented of substantial gains in the reading abilities of forty pupils in one class for approximately one semester

Three-group Plan In an article entitled "Fostering Individual Progress in Reading," M E Broom, assistant superintendent of schools, El Paso, Texas, describes the plan used in grades five to eight (22, p 11)

In the upper grades, with which this discussion is concerned, the effort is to individualize instruction This is accomplished by the use of a three-group plan of instruction with the grouping made on the basis of oral reading ability In each class, the pupils are divided evenly as to numbers, with the best one third in oral reading in one group, X, the middle one third in a second, Y, and the poorest one third in a third group, Z The purpose of this is to permit differing amounts of oral reading instruction, based on need, and individual attention to pupils as needed

In El Paso, provision is made for bulletin boards, teacher files, adequate classroom bookshelves, a wide range of reference books, fiction and nonfiction, and basal reading materials. Classrooms have been made into laboratories for reading activities and teachers are given "a considerable amount of latitude" in providing for both small group and individual needs.

Assistant Superintendent Broom (22, p. 16) concludes

It seems necessary only to say again that a well-planned program of instruction, providing tasks within the range of the child's best efforts, and providing for definite tasks, and yielding definite results which can be comprehended by the pupil personally has and should continue to produce improvement in both oral and silent reading If we err in teaching children, frequently it is because we do not think of teaching pupils, but rather of teaching subjects, and when this error is made we do not provide the conditions and the opportunities to pupils which characterize the favorable situation in reading instruction in the upper elementary grades of the El Paso public schools The El Paso program is not perfect, nor is its execution perfect in all classrooms, but it does permit and it does accomplish a high standard of instructional efficiency, yielding marked pupil progress in achievement in oral and silent reading

Reading for Enjoyment A plan of "Reading for Enjoyment in the Sixth Grade" has been described by Josephine H. Maclatchy and Ethel B. Beavers (37, pp 38–44). Provision was made for three reading groups plus individual reading activities. Most of the program was achieved through the use of single copies of a large number of books. Informal book reviews and individual pupil files of books completed proved to be fruitful

Not only did the enthusiasm for reading books extend to the average and poor reading groups of the home room, but the pupils of the other grade asked to be allowed to read before school, during recess, and to be excused from study hall when their work was done in order to return to the room to read Often all the seats not occupied by the reciting class were taken by visitors from the other group who were reading

the basal reading materials were selected in terms of the reading abilities within each group rather than in terms of the grade classification of the children. To make groupings within the classroom and then to prescribe the same dose of pedagogical medicine for each individual is, of course, the height of folly. The criticism is not aimed at basal readers as much as it is toward the *ways* in which they are used.

Library Facilities. Extended library facilities for a modern school are universally recognized as essential. In schools where four to ten sets of basal readers are supplied each classroom, the same expenditure of money would cover the cost of an adequate supply of individual titles. In addition, materials could be selected which would more nearly challenge the abilities and interests of the pupils.

Learner Goals. Varying degrees of attention are given to pupil understanding of learning goals. Co-operative planning by both teacher and pupils is an essential factor in purposeful reading situations.

Reading a Personal Problem. In the literature it is still apparent that many believe reading ability should be fully developed in the primary school or, at least, in the elementary school. This attitude undoubtedly has given rise to the popular misconception that a reading program in the secondary school is essentially remedial in nature.

Reading, a Process. Those who report some of the plans for differentiating instruction imply that reading is a subject to be studied rather than a process of thinking or one avenue of learning. They imply that one reads "reading" rather than literature, science, mathematics, and the like. Programs evolved on this basis entail discussions of transfer of learning because the processes often are not developed in meaningful and intrinsically worth-while situations. Reading cannot be conceived of as an end in itself.

Reading and Study. The misuse of

"reading checks" is evidence that the same approach is made to literary type content as is made to informative type content. Literature is still being *studied* as a medical student studies and dissects a cadaver rather than being *read* and enjoyed as the author intended. A differentiated program should recognize needed approaches to different types of reading material. And, too, it should be recognized that the content is not alike for all basal reading systems.

Enrichment. Some of the plans provide for differentiation only on the basis of rate of learning. In these instances, a fixed curriculum is established for all; individual progress is measured by class averages; and standardization of human behavior is the chief objective. The enrichment of reading activities varies with the relationship of the pupil to the class average, which means that those above the class average may be encouraged to do wide reading while those below the class average must struggle along with a questionable "minimum-essentials" program erroneously reckoned to bring them up to some kind of class average. This practical inconsistency contributes to curriculum impoverishment.

Engineers of many of these plans for differentiation of instruction have recognized the full import of the problem by beginning instruction where the pupil is and by guiding the pupil into a wealth of reading experiences commensurate with his ability. Enrichment of the reading program is not achieved entirely through increased library facilities. Direct as well as vicarious experiences contribute meanings and reorganizations of previous experiences essential to systematic and worth-while growth.

Class Size. Frequently the charge is made that lock-step programs are necessary in order to deal with large classes. More effective learning takes place in primary classes of twenty and upper-grade classes of twenty-five. Unreasonably large classes too often have been accepted without challenge. It is interest-

some plans, grouping within the classroom is another form of regimentation while in others the emphasis is placed on individual reading activities So long as "grade standards" predominate thinking, substantial progress in the direction of educating *individuals* will be impeded

Systematic Instruction Considerable confusion still exists regarding systematic instruction and formal and informal teaching Especially is formal instruction confused with systematic instruction. Formal instruction may mean the regimented study of a set of basal materials So far as a given individual is concerned this might be a most haphazard type of instruction leading to learner frustration As stated by Kilpatrick (29) "We need

to understand that the apparent order and system of the traditional school program is both a snare and a delusion" To be systematic, learning must take place in terms of individual development rather than of class averages.

Basal Readers. Basal readers are used extravagantly in some plans and not at all in others Where almost complete individualization in so-called basal reading activities is achieved, very little use is made of basal readers. In one experiment at the sixth-grade level, the "informal" reading activities were individualized, but every pupil was required to participate in "formal" reading activities, using one sixth-grade basal reader. For the most part, however, when tentative *groupings were made in the classroom,*

Evelyn Trustle

SPECIAL APTITUDES ARE RECOGNIZED HERE.

York, Pa.
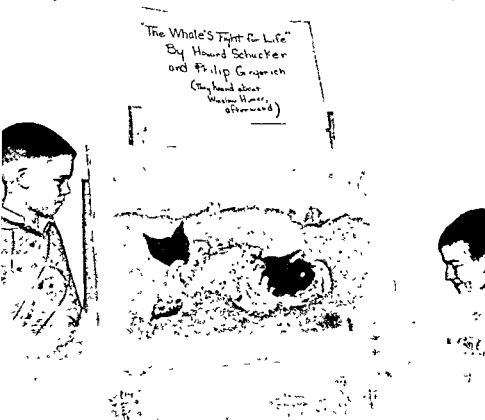
truth in the belief that about half the class learn in spite of the teacher. The very fact that retardation in reading is not peculiar to any one intelligence level (i.e., about the same percentage of average and superior children are retarded as may be found among those of below normal intelligence) provides substantial evidence of the need for beginning with each child at his own level of achievement in interest and ability. To do this requires that materials representing a wide interest and difficulty range should be available in each classroom, a third-grade classroom having materials ranging from a number of different preprimers to fifth- and sixth-grade science books. There is also the danger of spending a disproportionate amount of time with slower pupils so that the others may form slovenly habits of work and thereby fail to achieve in terms of their mental capacities. When all learners are challenged, individual development and achievement will hold sway over standardization of classes

ing to note, however, that most of the reported plans for reorganizing individual needs have involved classes averaging about thirty-five pupils. This should not be construed as a defense of large classes, instead, this should be a challenge to those who maintain that differentiation is out of the question until class sizes are reduced

Parent Approval Additional reports of attempts to break the lock step probably will corroborate previous findings that parents support reasonable approaches to the betterment of the educational program The increasing volume of literature providing definite evidence of parental co-operation provides little solace for the educator who is content to dismiss the whole subject as "not worth the candle because parents won't tolerate discriminations" This problem of attudes in education applies more to educators than to children and parents.

Pupil Attitudes. Many of the protagonists of differentiated instruction have been careful to assay learner opinion. From these investigations it appears to be true that children like the various plans because "they learn more."

Since there is not too high, although a significant, correlation between mental ability and reading ability, a teacher is not justified in labeling groups as "bright," "average," and "dull" Furthermore, the tentativeness of groupings should make such a practice questionable One certain way to wreck morale is to fail to recognize the contributions of every member of a class.

Teacher Interest Plans for differentiating instruction have been reported by teachers, supervisors, and administrators It is interesting to note that supervisors and administrators imply that it is difficult to enlist teachers in experimental plans because they are loath to break faith with their much-practiced lock step habits. On the other hand, there is some evidence to indicate that progressive teachers are hampered oftentimes by supervisors who are still in the

"time-allotment" era. Since differentiation of instruction involves school policies regarding admission and promotion, curricula, library facilities, and supplies as well as classroom administration, it is necessarily a co-operative enterprise

Summary

This chapter has been an attempt to call attention to one important reorganization required in a substantial number of elementary schools if pupil needs are to be met; namely, that of reorganization of thinking and beliefs in regard to pupil needs First, the principal, himself, must be aware of the probable existence of a wide variety of mental, emotional, and physical differences within a so-called grade Second, the principal should not permit his thinking to be circumscribed by a grade concept of children If the term "grade" is to be used at all, then it should be used to designate a group of *individuals*. Third, one of the first instructional jobs of a principal is that of assisting the teacher in "learning" the child before teaching him. Fourth, a second instructional job of the principal is that of assisting the teacher in securing appropriate materials of instruction. Fifth, a third instructional job is that of assisting the teacher in the development of classroom procedures for the guidance of the pupils into worth-while and purposeful activities. Sixth, a fourth instructional job of the principal is that of securing assistance from parents in defining the school program. When the principal has met these obligations, he is well on his way to the reorganization of his school on a learner-centered basis.

Differentiation of instruction by the formation of informal groupings within the classroom should never be conceived as just a means of caring for the intellectually immature pupils, for the basic principle back of the whole concept is the challenging of all—the slow, the average, and the fast learners. In the past, there may have been a grain of

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The written word has become not only an instrument for liberating men but a means of enslavement as well . . . The kind of reading one does thus becomes of major importance—"kind" not in the sense of what one reads but rather of how one reads. Intelligent reading today requires critical interpretation, weighing of evidence, and evaluation in terms of the reader's purpose   HOLLIS L. CASWELL (6, p v)

Reading and Better Living

In the *New York Times* Book Review section of July 16, 1939, there appeared a cartoon from Punch, dealing with the problem of reading. An old "blighter" with a cigarette drooping from beneath his mustache shuffles into the kitchen late for his dinner and finds his small son deep in study. Apparently unnoticed by the boy, he observes "Readin' agin'! Ain't yer got a mind of yer own?"

Contrary to the attitude of the old "blighter," most parents of today place a premium on reading as one of the school "subjects." Without reasonable facility with reading processes, the pupil's educational progress is blocked; he is denied many recreational opportunities; his language handicap is likely to be interpreted by teachers as mental retardation; his contemporaries may heap ridicule upon him in a most brutal fashion; he may be otherwise qualified are withheld; and his personality development is likely to be distorted. Indeed, most parents, with considerable justification, emphasize reading ability as a significant acquisition for better living.

And, again, the old "blighter" in the cartoon did not recognize reading as a shorthand method of recapitulating the development of civilization and thereby as a means of insuring for youth their rightful heritage. It is through reading in the larger sense of the term that the contributions of civilization are distilled and become available to each succeeding generation. It is through the reconstruction of the facts behind recorded descriptions of past events that predictions—however crude—of things to come are made possible. It is on the basis of past experiences that individuals and groups of individuals achieve orientation through evaluation.

In 1941 Dr. W. W. Charters gave vigorous expression to his ideas regarding the role of reading in the modern school and, therefore, in the present world situation (7, p. 145):

Reading is man's most potent skill. Without reading his world is circumscribed by his neighbors. All he learns is what he picks up in conversation, information garbled in transmission, delayed by the slow seepage of news through word of mouth. He is provincial by geography and ignorant by isolation His knowledge of what is happening in the great and complicated world is confined to what he can learn from the radio, if he has time to listen to it, or to sound news-

"What Happens Next?"

R. W. Outland   Ottawa Hills, Ohio

general language development, in some instances basal textbooks are being misused through calendar-dictated learning and care has not always been exercised by the authors to insure at least the complementing of development in reading and composition (oral and written).

TO WHAT EXTENT SHOULD THE LANGUAGE ARTS BE INTEGRATED?

This problem is a very practical one. Greater gains in achievement and fewer language disabilities result from instruction in terms of developmental needs. Speech, reading, and writing (including spelling) are facets of a larger whole called language. No one of these facets can be viewed or dealt with in isolation from the other facets of language because language *is* these means of communication. Teachers who attempt to teach speech, reading, composition, spelling, etc., as isolated fragments find themselves dealing with something that is less than reality.

Development of Language. Teachers dealing with the development of language abilities must have some basic understandings of how a child acquires language facility. First, children acquire experience with facts. Experience precedes the development of language ability; otherwise, only verbalism is achieved. Every alert teacher has often encountered pupils who could *talk* or *write* endlessly without saying anything or who could pronounce words rhythmically without comprehension of what was "read." The making of speech noises or responding to visual symbols without referring to facts is verbalism. Normally, facts are acquired before language. Second, children learn to respond to language-fact relationships by listening. Third, after the child has learned to listen and to differentiate between speech noises for given referents, he learns to *produce* speech noises that refer to facts and, therefore, have significance. Fourth, after the child has acquired reasonable control over language-fact relationships at the oral level, he is *ready* to respond to visual symbols or to read. Fifth, when the child has learned to differentiate

reels if he can afford to see them The world of newspapers, books, magazines, and bulletins is closed against him by the massive walls of ignorance

Reading is the keystone of the arch of intelligence that the schools have been established to construct Place the mastery of reading on one pan of the balance, and all the other subjects of the curriculum on the other, and the others will hit the beam A man can pick up enough arithmetic for ordinary purposes outside of school He learns to talk before he enters school The pattern of his character is set in his home It does not matter greatly if he cannot write His knowledge of health, history, literature, and politics he can pick up for himself if he knows how to read Strip the curriculum to its bare essentials and three R's do not remain There is only this one supreme essential R—the ability to read with speed and comprehension

Change of Emphasis. Instruction in the use of language has progressed far beyond that offered under the headings of reading, spelling, written composition, and speech only a generation ago Emphasis has been shifted from the compartmentalized language arts to general language education, thereby offering a broader concept of reading in communication In view of this, reading is no longer conceived to be an isolated fragment of the language arts but a facet of language

Reading is a language process rather than a subject In a psychological sense, reading is a thinking process In another sense, reading is a "social process" that "relates the reader to his environment, and conditions that relationship" (22, p 30) Psychophysiological factors, such as seeing and hearing, also are embraced by an adequate concept of reading as a process Only if reading is conceived to be a mere word-pronouncing process can many of the other facets of language development be excluded from consideration in dealing with this problem of communication. Basic consideration should be given to meaning and secondary consideration to the symbols

Unified Language Instruction When read-

ing is viewed as a facet of language rather than as an isolated set of skills, abilities, information, and attitudes to be developed, *unified* language instruction becomes imperative. An examination of basal textbooks discloses increasing author recognition of the relationships among the language arts. In basal readers, spellers, and language books, more attention is being given to the semantic implications. Basal spelling books present an appearance of a modified language textbook; reading materials are being written to carry a heavier burden of those activities formerly labeled *English*, or *language*; and the content of language books considerably overlaps that of readers and spellers. In terms of publications for classroom use, the trend is toward unified language instruction.

This overlap in the content of textbook materials for the development of specific language abilities can be justified under certain circumstances· first, to the degree that systematic sequences for the development of general language ability are validated; second, by providing for individual interests and needs through differentiated instruction. In short, reasonable caution should be exercised to insure complementary learnings for the reinforcement of language abilities and to avoid undesirable and inadequately timed overlaps that may interfere with normal development.

Between the two extremes of viewing reading as an isolated subject and as a facet of language there are many shades of opinions and practices. In short, a curious combination of "beliefs" and practices exists in a given school situation One of the important factors contributing to confusion is the use, or perhaps the misuse, of basal textbooks in reading, in spelling, and in elementary school English. (It will be observed that, in general, speech educators have not offered prescriptions in the form of basal textbooks) Although the authors of some teacher's manuals give suggestions on differentiating instruction in terms of

for the reading of a given unit by establishing purposes which govern the rate, depth, and accuracy of comprehension; (4) attempts to develop word analysis techniques before the pupil has acquired facility in reading materials containing an adequate stock of sight words; and (5) failure to provide equal learning opportunities in the classroom by guiding pupils into the reading of materials which challenge their abilities and interests. The products of these violations include such common difficulties as word-calling, random errors in word perception, memorization rather than interpretation, lip movement and vocalization, tension, wandering attention, and poor attitudes.

Three Types of Reading

A successful reader is as versatile as an all-round athlete. Although a good athlete may excel in only a few sports, he usually is better than average in several. Likewise, a good student is versatile in his reading. Skimming, rapid reading, and study—these can be used when needed by good readers An able reader knows when to use and how to use skimming, rapid reading or intensive study of details. By a skillful selection of the type of reading needed, time is saved and reading activities become enjoyable and profitable.

The type of reading activity used depends upon why one is doing the reading If one is looking over a number of references to find information on a given problem or topic, then *skimming* the index, table of contents, and section headings to find key words should be used rather than the rapid reading of every word. When a general impression of the main ideas is the chief concern, a *rapid reading* may be sufficient. Important *details* are picked out and are related to each other and to the main ideas by careful *study*.

Reading for the main idea permits speed and is something like taking a fast plane to cross the continent. On the other hand, reading for details requires not only a grasp of the main ideas but also a putting together of the smaller ideas to bring about a better rounded and more nearly accurate understanding Here speed must be sacrificed; a freight train pace is sometimes necessary for the careful collection and relating of small bits of information. In short, reading a story or a chapter of history for general impression can be done faster than the careful reading of directions for a science experiment or of a comprehensive discussion of the causes of an economic depression A versatile student can vary his rate of reading with the purpose of the reading; he does not try to read rapidly when mastering details.

Main ideas are indicated by a writer in a number of ways: by an introduction in the front of the book to give his point of view, by a carefully selected chapter title that gives the general idea, or the central thought of the content; by a preview of the chapter to prepare us to pick out the main ideas; by section headings within the chapter to guide us in finding the main ideas; and by a concluding summary at the end of a chapter to review and to show how the main ideas go together. Most authors use at least two or more of these devices to put across their main points.

Main ideas are more interesting and better understood when the smaller ideas, or the details, that go with them are known. Usually main ideas are not expressed alone; instead, they depend upon details to give them importance and to make them fully understandable. And, too, sometimes reading is done largely to get the details. Getting the main idea, then, is many times only a part of reading. Reading for the main idea develops fluency, rhythm, and speed while reading for details develops power and accuracy. The ability to read accurately for details should help one to think clearly and to remember what one reads

between visual symbols and to reconstruct the facts behind them, he then is *ready* to use visual symbols for communication with others. In short, he is ready to learn how to write. This pattern of development of language ability may sound very elementary It is. On the other hand, there are countless examples of attempts to violate this pattern of sequential development in both homes and classrooms. This often results in some type of language disability.

It is clear, then, that reading must be considered in relationship to the other facets of language. When reading instruction is initiated without regard to oral language development and to control over language-fact relationships, the learner is likely to be frustrated. Then again, when writing is introduced without some evaluation of reading achievement, learning may be blocked

Systematic Instruction

The development of language ability requires consideration of interrelated and systematic sequences From available evidence, attention to *systematic* instruction in terms of individual needs appears to find greater justification than certain types of *opportunistic*, or *incidental*, instruction. Since patterns as well as the rate of language growth vary widely, it is assumed that the systematic sequences will be evaluated in terms of *individual* needs rather than in terms of ill-defined grade, or class, needs It is assumed, furthermore, that growth takes place on a systematic basis

By means of his graded series of readers, McGuffey unwittingly contributed to the regimentation of pupils His work gave an impetus to the grade placement of subject matter at a time when there was a great need for the study of systematic sequences This idea of grade placement was erroneously interpreted by those who assumed homogeneity and common needs among the pupils of a given grade classification *Sequences* were established, but they were not systematic for a given individual. Hence, this overemphasis on grades and grade placement seems to have contributed to some of our recent concern over development deficiencies in language.

Relation to Formal and Informal Instruction. Systematic learning is essential to normal development, but a dense, black fog has enveloped the issue. The term has been ill defined, and its true meaning has been obscured in a mass of conflicting statements. As a result, there is confusion in the minds of some regarding the relation of systematic instruction to formal and informal instruction. An unsystematic, incidental approach to the learner's problems is made by the "formal" teacher who proceeds on the philosophy of the "goose step" reading of the preprimer, primer, and subsequent books in a series, and who insists on a pupil-recite-to-teacher situation On the other hand, it is the so-called "informal" teacher—interested in the physical, mental, and emotional development of the individual learner and in the development of situations for the sharing of vicarious and real experiences—who believes in providing systematic learning opportunities differentiated in terms of pupil needs

"Begin with the learner" appears to be a truism often violated, but if this one basic principle of education were put into practice in the classroom at all levels of instruction, there would be less exploitation of the learner, and the grade classification of children would lose its present disproportionate significance.

Unfruitful deviations from systematic instruction take a variety of forms in daily learning activities. Among these methods which frustrate the learner are the following: (1) use of supplementary beginning reading materials which overlap the basal materials very little in vocabulary and content; (2) failure to prepare the pupil for the basic preprimer through legitimate reading-readiness activities; (3) failure to prepare the group

development of efficient reading habits is the responsibility of every teacher.

The processes of reading can be "seen" neither with the naked eye nor by means of a microscope. Educators and psychologists with the help of neuro-physiologists and others, therefore, *infer* from observation what is happening when one reads. In reading narrative material, the eyes can be seen to move discontinuously across each line of type. By photographing these saccadic (or jerky) movements of the eyes, it has been learned that the fixation *pauses* (or stops) require about ninety-six per cent of the total reading time. By observing overt behavior (i.e., scowls; frowns; smiles; tension movements of hands, feet, and body, etc.), certain psychological reactions to the reading situation can be described. By questioning or by observing the use made of information obtained during reading, some measure of the accuracy and depth of comprehension can be secured. When standardized reading tests are administered, the teacher is provided with an index of how well a given pupil reads a given set of material when his score is compared or contrasted with his contemporaries.

Dr. Ullin W. Leavell urges the consideration of a broad "functional point of view of reading instruction" (15, p. 7):

Reading is universally recognized as one of the most important activities in the school program as well as in life activities. It is difficult to over-emphasize the importance of reading in modern life. Educational leaders of the past rightly emphasized the necessity of development of ability in this skill process. Unfortunately, however, they failed to realize that such development could best take place in a program that took cognizance of the fact that reading has no subject matter of its own. Literature, history, geography, and the other great fields of human interest all have a content of their own, but reading has no such content. The failure to recognize the implications of this fundamental truth led to the development of programs of reading focused upon reading assignments and lesson techniques based on reading as an end in itself

Reading requires the establishment of purposes; the association of new experiences with the individual's background; the anticipation of meaning; the use of judgment; the appreciation, organization, and retention of ideas; the drawing of inferences; and similar mental and emotional reactions, depending upon the purpose of the reading and the type of material under consideration. If reading is conceived to be a thinking process, then the beginning pupil must have sufficient mental maturity or ripeness to do the type of thinking required for the interpretation of the reading materials, and the type of reading program used for beginners will determine the level of mental readiness required. The statement has been made, without substantiating data, that programs and methods can probably be developed, on the basis of present knowledge, which will make any age from three to eight years appear optimum for beginning reading instruction.

In addition to the pedagogical and psychological phases of reading, the physiology of this process merits consideration. A visually uncomfortable child probably does not enjoy reading any more than a blind man would enjoy reading Braille if he had boils on his fingers. For normal cases, discontinuous movements of the eyes at reading distance require ocular co-ordination and reciprocative action of the accommodative and convergence functions. This fact confirms the statement that reading is a complex of skills and abilities rather than simple, unitary behavior.

Reading requires a "taking to" as well as a "taking from" a language situation. One man may look at the picture of an aeroplane and "see" only a streamlined machine that flies through the air. An engineer may look at the same picture and "see" examples of recognition or violations of fundamental principles of

Sometimes authors *organize* details to show how they go together in the form of tables, graphs, diagrams, drawings, detailed outlines, or lists. More often, however, the details are woven into paragraphs.

The false notion that slow readers comprehend more than rapid readers is entertained sometimes. In general, there is a substantial relationship between rate of reading and comprehension. The slowest reader in a group is likely to comprehend the least while those who comprehend best are likely to be rapid, though perhaps not the most rapid, readers. When pupils are taught versatile habits of reading, the rate of reading can be improved *without reducing comprehension*.

These three types of reading—skimming, rapid reading, and study—are used by skillful readers. Versatility in the use of these three general types of reading is one of the goals of reading instruction. The development of critical comprehension is enhanced to no small degree through the acquisition of this versatility.

Reading, an Evaluating Process

Reading is a *process* rather than a subject. The development of efficient and versatile habits of reading and study is a *continuous* process which cannot be terminated when the pupil is admitted to the intermediate grades or to the secondary school. Since reading is primarily a thinking process, reading ability cannot be fully developed in the primary school. If this viewpoint is translated into practice, then very definite provision for systematic guidance in reading should be made in the secondary school. Furthermore, the fact that one does not read "reading" but reads literature, science, social studies, mathematics, and the like, places the responsibility for systematic instruction on all teachers. In short, systematic instruction for the

A STUDY OF NUTRITION

University Elementary School   Lexington, Ky.

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A STUDY OF NUTRITION

University Elementary School   *Lexington, Ky.*

A PULLMAN PORTER HELPS WITH A LESSON IN TRANSPORTATION

Mary D. Reed   Terre Haute, Ind.

tance as a *learning tool*, but also on its importance as a *social tool*. A child growing up in this country is, and we hope will always remain, free to choose the newspapers, magazines and books which he wants to read. He will be fascinated and taunted by political views which are contradictory and sometimes calculated to confuse; he will be bombarded by advertisements, some of which are difficult to distinguish from fiction writing, he will find *reading material on problems for which he is seeking aid* written in an ambiguous style and *often by authors of questionable intent*. Yet, *if he is to be an informed and intelligent citizen in a world which is* increasingly complex and difficult to understand, he must be a reader, and more than that, an intelligent reader.

Students of reading problems should read Dr. Ernest Horn's excellent chapter on "Reading in Relation to Learning in

the Social Studies." The following is a challenging paragraph from his discussion of the nature of reading (13, p. 152):

> There is some disagreement as to how broadly reading should be defined. The mere recognition of words as words, leading at times to their memorization, although it involves some degree of reading ability, obviously stops at too low a level. Some writers prefer to limit the use of the term to the understanding, varying from little to much, which accompanies the movement of the eyes along the lines of the printed page. Others would include also the selection, appraisal, reflection, and problem-solving that may be required for an adequate understanding of what is read. Still others would include under the term most of the processes associated with and necessary to the effective use of books. There are advantages and disad-

vantages in each of these definitions, although the narrowest of them is broader and less definitive than would at first appear As used in the discussions in this chapter and throughout the volume, reading includes those processes that are involved in approaching, perfecting, and maintaining meaning through the use of the printed page Since there are many such processes, and since each one varies in degree, the term must be elastic enough to apply to all the varieties and gradations of reading involved in the use of books

Recently, Count Korzybski, the general semanticist, described reading as "the reconstruction of the facts behind the symbols." This *notion of reading* shifts the emphasis from the mechanics of reading to interpretation, in the larger sense, as the crux of communication It is the problem of intelligent reading with which the teacher must come to grips

Relation of Symbols to Meaning. The print or the pen scratches on the page are symbols that represent, or stand for, certain facts It is to these symbols that the reader reacts. A symbol is a *partial stimulus* in that it represents a part of a previous experience. To the degree that a symbol, or the interconnectedness of a series of symbols, is adequate to produce an appropriate response, it has significance, or meaning, to the reader. Since the meaning does not exist in the symbol, comprehension, or understanding, is the product of reconstructing *within* the nervous system of the reader the facts, or things, which the symbols represent. That which the reader obtains from the

LEARNING ABOUT CHINA

Rural Demonstration School   *Oswego, N.Y.*
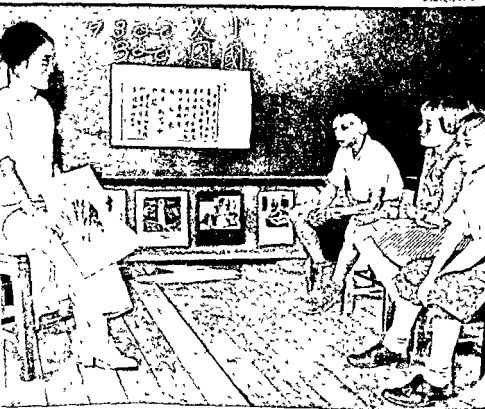
reading is sometimes referred to as mental *constructs.*

This statement is sometimes made: "I read but I don't know what I've read when I have finished." The simple truth of the matter is that the individual didn't read. The mere pronunciation of words or the act of viewing the words is not reading. To read one must react to the symbols, because reading requires the "reconstruction of the facts behind the symbols."

When reading is dealt with in terms of mental constructs, the importance of experience, purpose, interest, language facility, and general intelligence as highly interrelated factors in readiness for reading at any school level becomes increasingly clear. Without a background of experience with the facts referred to in a selection, the reader is frustrated in his attempts at understanding. Unless the reader has clearly defined purposes, his reading will lack direction, organization, and responsiveness. A disinterested reader lacks the drive so essential to the development of well-rounded-out constructs. Deficiency in general language ability is an additional handicap, for reading is a problem in establishing control over language-fact relationships. Mental immaturity is often directly related to the inability to make constructs. Even at the lowest school levels, reading is a very complex and abstract learning aid.

Reading is an evaluational process which requires specialized types of integrated action. In other words, it is purposeful experiencing in which mechanics are subordinated to meaning. Reading, therefore, is more than the reciprocative action of the eyes as they move discontinuously over each line of type; it is more than the ability demanded for mere word pronouncing; and it involves emotional patterns more intricate than those required for aimless and colorless oral reading to the teacher. In psychological terms, reading as a thinking process calls for purposeful interpretation, carrying a sequence of ideas in mind, association of immediate experiences with a background of information and feeling, anticipation of meaning, organization of ideas, drawing of inferences (or reading between the lines), use of judgment, and similar mental and emotional responses, depending upon the purpose of the reading and the type of material. Integrated with these psychological processes are certain patterns of seeing which vary with the demands of the reading task. In addition to reorientations of mental functions required by changes in the purpose of the reading (such as skimming, reading for general impression, reading for details), different visual patterns are brought into action. In the true sense of the word, therefore, reading is a dynamic rather than a static process, requiring constant changes in or reintegration of patterns of behavior.

The development of reading abilities and effective study habits is a problem for kindergarten and primary teachers as well as for teachers at higher grade levels. Provided with a bright schoolroom environment, purposeful school activities, and creative learning situations, the beginning pupil starts to develop desirable reading and study habits. As the individual progresses through school his teachers should make sure that his interests are extended, that his experiences enrich his background of information and feelings, that his control over language is increased. Stated simply, the development of reading ability is a perennial problem.

Influence of Basic Notions upon Reading Instruction. The notions that the teacher entertains regarding the nature of reading dictate school practices. It is for this reason that teachers at all school levels, including the kindergarten, should examine this process which is so crucial in American education. First, when reading is viewed as a *process* rather than a *subject,* guidance in all activities involving reading becomes one of the primary

functions of the teacher. Emphasis is placed on the acquisition of basic reading abilities in reading-to-learn situations. Second, when reading is looked upon as a facet rather than as a fragment of language, the compartmentalization of instruction in the language arts (i e , reading, writing, and speaking) is entirely without justification Emphasis is placed on the interrelationship between the language arts and, therefore, guidance is given in general language education. Oral language ability is used as a primary criterion of readiness for reading activities, and reading ability is used as a primary criterion of readiness for writing activities, including spelling Third, when reading is evaluated as one element in the interpretation of language-fact relationships, steps are taken to insure an adequate background of experiences so that verbalization is replaced by rich understandings Emphasis is placed on guidance in reading through experiences Fourth, when reading is appraised in terms of purposes, versatility in reading behavior becomes one of the primary concerns of the teacher. Skimming, rapid reading, and study-type reading are taught as a means of varying rate with the purpose of the activity Basic notions regarding reading are not a subject for mere academic discussion because they influence the teacher in her approach to the problem of reading instruction

The title of this discussion, "The Reading Facet of Language," was selected after careful consideration because it expresses a point of view. All of the discussion is built on the notions basic to the point of view that reading ability, after all, is only one facet of the whole, called language ability Furthermore, language is conceived to be a means of social communication about facts When language breaks without relationship to facts, verbalism results and the learner is frustrated in his attempts to achieve orientation How successful a teacher is in developing the larger and more crucial aspects of reading comprehension in her pupils depends to no small degree upon her grasp of the implications of this point of view and upon her ability to translate it into practice.

Summary

Reading is a process of evaluation, or of reconstructing the facts behind the symbols Verbalization, or the meaningless use of language, is the outcome of emphasizing language in isolation from experience Unless the reader can bring his experience to bear upon a unit of reading matter, his comprehension is drastically reduced Reading is a very complex process which has to do with the interpretation of verbal signs; that is, with the relating of language and facts

Visual symbols on the printed page are at the best very remote from the facts The intelligent viewing of a photograph of feeding an animal probably requires more experience than direct participation or observation The reconstruction of the facts behind symbols used in a written discussion of feeding requires even more experience. Hence, the more remote from direct experience a learning aid, such as reading, is, the more experience the learner must take to it. This is one reason why background of information is an important factor in reading readiness

Reading is one facet, or phase, of the total called language There is a substantial relationship between reading and other language abilities Speech, reading, and writing (including spelling), therefore, must not be divorced in the instructional program To develop control over the reading process, the learner must acquire control over language structure which is used to show the interconnectedness of symbols Individuals learn control over language and learn by means of language. This is one reason why facility in the use of oral language is a potent factor in readiness for reading

Reading is reacting to printed symbols. Words and their immediate printed context are symbols in that they stand for, or represent, certain facts. This is one reason why the development of a "concept" of reading is so important in reading-readiness activities.

Reading is a *social* tool. Language is used for communication with others. Hence, reading should be done to satisfy social needs and in social situations. This is one reason why social maturity is so important as a factor in readiness for a modern program of reading instruction.

Efficient reading is purposive. Constructs, or ideas, are developed and synthesized according to how the evaluation is made. This is one reason for clearly establishing purposes before reading is undertaken. Purpose dictates the types of reading skills employed and the rate and depth of comprehension

Anyone dealing with instruction meets head-on the problem of meaning What the teacher does about the language aspect of the problem of learning describes his attitude and basic premises

One of the goals of reading instruction is versatility in the use of reading skills. The rate of reading varies with the purpose of the reading and with the difficulty of the material. Hence, the learner must be taught how and when to use skimming, rapid reading, and study-type reading to serve his needs.

Instruction is systematic to the degree that individual variations in development are recognized. Systematic instruction requires a *differentiated* rather than a *regimented* approach to the problem of learning

Control over language is developed in an orderly sequence. Facility in the use of oral language precedes the development of reading ability Some control over the reading process must be achieved in order to insure readiness for writing When the general pattern of language development is disturbed by premature or belated instruction, interferences in learning may be set up

Reading is a dynamic process which calls to action the whole organism When the equilibrium of the organism is disturbed by emotional disturbance or a changed physical status, reading efficiency may be reduced. Hence, the teacher must be concerned with the emotional and physical well-being of the learner.

The teaching of reading is a perennial problem at all school levels. The old notion that children learn to read in the primary grades and read to learn in the upper grades has proved to be fallacious A reading-to-learn approach is made now in modern schools The reading problem at all school levels has always been there but only recently has it been recognized.

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There is, I think, nothing in the world more futile than the attempt to find out how a task should be done when one has not yet decided what the task is.   ALEXANDER MEIKLEJOHN (16, p 574)

Purposes and Objectives

Purposes and objectives of reading instruction have been revised, broadened, and extended so that the modern school offers rich and worth-while reading experiences, the chief purpose of which is the preparation of the child for living in a democratic society. This is being achieved by differentiation in instruction and reduction of regimentation; by socialization of the objectives of reading instruction; by emphasis on meaning and critical interpretation rather than upon drill; by recognition of individual and group interests and needs; and by careful guidance in learning *when* to use language and *when* to listen as well as *how* to use language. Autocratic teaching is being superseded by techniques for educational guidance evolved in modern schools. Hence, the purpose of the modern school is the development of wholesome personality based on social and emotional adjustment as contrasted to the learning-of-subject-matter purpose of the traditional school.

In traditional schools, the objectives of reading instruction have been stated largely in terms of skills, abilities, and information to be learned. One of the chief differences between the objectives of traditional schools and those of modern schools is the emphasis on pupil attitudes. In modern schools, attitudes of approach receive major attention so that the child is motivated from within to acquire needed skills, abilities, and information. In short, incentives play a major role in traditional schools; motives, in modern schools.

Reading came to be revered as a separate subject in the curriculum, in traditional schools. Reading instruction was administered on the assumption that reading had a subject matter of its own. When the children closed their books at the end of a reading lesson, instruction in reading ceased for the day. While this may have brought a sigh of relief, the pupils did not learn *when* to use reading as a learning aid in their other school and out-of-school activities and they did not learn *how* to read arithmetic, science, social science, and other instructional materials As a result, reading was divorced from the problems of everyday living

Reading as a Learning Aid. In modern schools, reading instruction is based on the notion that reading is a *process*, not a subject. Reading is conceived to be a *social* tool to meet social needs. The child lives in a language world where reading and listening play a dominant role in social and emotional adjustment. He is besieged on every side with billboards, books, newspapers, magazines, radio programs, and numerous other language barrages designed to influence his views

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and opinions. (Both dictators and democratic league leaders are learning how to use language to influence people and make friends!) Since a reasonable degree of control over the reading process is vital to successful living in a democratic society, reading instruction in a modern school is not limited to compartmentalized treatment in a separate period, instead, guidance is given in reading in all school activities so that it functions to the fullest extent in the child's out-of-school life. In this way, reading interests are broadened and attitudes of wanting to read are nourished

Discussions of reading instruction sometimes reflect a distorted view of reading as an aid to learning. It must be remembered that reading, among other learning aids, is one of the most difficult to learn how to use and that it is the farthest removed from direct experience. Furthermore, reading must be based on experience, and reading probably requires more background for successful use than other types of learning aids. A discussion of the goals of reading instruction, therefore, should recognize other types of aids to learning. Some of these may be listed as follows

Direct experience through activities in and out of the classroom

Direct observation through trips, excursions, classroom exhibits, and the like

Viewing models

Viewing motion pictures, including sound movies

Viewing stereographs

Viewing still pictures in picture magazines, newspapers, books, and on slides

Viewing cartoons, including serial cartoons

Viewing maps, graphs, charts, and diagrams

Listening to radio programs, and phonograph records

Conversation and discussions

All these aids to learning are used in life outside the school, hence, it appears that they can be used as effective aids to learning within the school. It is true that experience is enriched by means of the vicarious experiences gained through reading, but experience can be further enriched by the use of a diversity of other types of learning aids. Dealing with printed symbols in reading activities is the means of learning that is the most abstract The pupil needs to learn how to use them for securing information and for sharing, or communicating, that information to others.

In a modern school, attitudes are developed toward reading with the goal in mind of teaching the child when to use reading as a learning aid While reading is believed to be a most important learning aid, children are taught to use others such as globes, pictures, stereograms, discussions, and the like. By this means the child is taught to understand the true value of reading for recreation or for solving problems. The perspective obtained from viewing and using reading in relation to other learning aids further buttresses desirable attitudes toward reading.

INSTRUCTIONAL GOALS

Developmental reading goals have been analyzed from many points of view. Each investigator has contributed to professional understanding of the nature of reading instruction. Each has emphasized the desirability of a comprehensive and balanced program to promote pupil independence and versatility.

Reading skills, techniques, etc., can be classified and reclassified *ad nauseam*. Long lists can (and have been!) extended to cover more than five hundred "specific" learnings While analyses and classifications do call attention to the complex nature of the reading process, these "isolated" lists of learnings can be overemphasized. The important consideration is the development of pupil competence in the reading facet of language

Skills, Abilities, Attitudes, and Information Earlier analyses of instruction goals

emphasized skills, abilities, attitudes, and information. On the basis of these factors, long lists of learnings were organized under six categories: (1) knowing when to read, (2) locating information, (3) selecting and evaluating information, (4) organizing information, (5) comprehension, and (6) retention. These learnings, including those culled from recent investigations, are summarized on pages 88 to 98 of this chapter.

Attitudes and Situations. Often, the above-mentioned learnings have been classified under two headings (1) work-type or informational and (2) recreational reading. This classification calls attention to the attitudes of the reader and to the situations in which he reads.

In general, reading is done in two types of situations: informational and recreational. There is no clear-cut line of demarcation between these two types of situations. For example, much of John's recreational time may be spent in the study and the making of model airplanes. In this case, reading for information may be worth-while recreational activity. Generally speaking, however, informational-type reading skills are called into play in the reading or study of mathematics, science, and the like, while recreational-type reading skills are needed in dealing with various types of literature.

One of the chief reasons for calling the teacher's attention to those two general types of reading situations is that different types of materials require somewhat different reading techniques. The development of desirable attitudes toward reading is one of the major goals of reading instruction. When story-type material is used for the development of study skills, the wrong pupil attitude often is acquired toward literature. Literature, for example, is written for enjoyment during leisure hours, not for minute dissection. Furthermore, the teacher cannot depend upon the development of skills, abilities, attitudes, and information acquired from the use of

recreational-type materials to meet the needs of the learner for dealing with informational-type materials

Impression and Expression. One of the important contributions of research before 1920 was the differentiation between silent and oral reading processes. On the basis of this research, reading goals have been classified in terms of impression (silent reading) and expression (oral reading)

Seldom is an individual required to read orally at sight. In most life situations, the reader has the opportunity to prepare for an oral reading situation. This preparation usually begins with silent reading.

While most reading is done silently, there is a very definite need for guidance in oral reading. In the first place, certain types of literature (e g , poetry) must be read orally and listened to for satisfactory appreciation. Secondly, there are situations (e.g., reading the minutes of a meeting or a science report) in which effective oral reading is a prerequisite to communication. An adequate reading program provides guidance in oral interpretation as well as in silent reading.

Scope of Activities. Some attention has been given to the classification of activities in terms of (1) intensive and (2) extensive reading. Much of the reading of textbooks places a premium on the intensive use of reading-study techniques On the other hand, a broad and enriched reading program requires the use of many references. Extensive reading, therefore, is a term used to designate either wide reading or rapid reading to assimilate main ideas. Like other classifications, intensive and extensive reading are not mutually exclusive. For example, extensive reading of many references may also involve intensive reading

Rate of Reading and Purpose. The goals of reading instruction may be discussed from another point of view: reading techniques. There are *three* general types of reading techniques calling for different combinations of skills: skimming, rapid

reading, and study-type reading. The use of each of these depends upon the purpose of the reading.

Skimming is used primarily to locate information A table of contents or an index is skimmed to locate a chapter or a specific page. A chapter is skimmed to note its organization or to locate a key word A dictionary page is skimmed to locate a vocabulary entry Skimming is high-speed reading It is done at the rate of several pages a minute, because most of the reading matter is skimmed over to get to a key word, phrase, or sentence

Midway between skimming and study-type reading is rapid reading This is reading in intermediate gear. The rapid reading of the selection gives the reader an over-all picture, or a survey, of the main ideas Rapid reading varies in *rate all the way from two or three hundred words to fifteen hundred or more words a minute* An experienced adult reader may read *The Egg and I* at a fairly high speed, but his rate would be lowered for *The Clayhanger* Rapid reading varies with the style of writing and with the rates at which new concepts are introduced

Study-type reading is low-gear reading It is done where power is required to deal with new and complex concepts A chapter in a history book may be read at a rate varying from 100 to 300 or more words a minute, depending on the reader's familiarity with the material. A table, paragraph, a page, or a section of a chapter in a physics or chemistry book may merit considerable study and *reflection, requiring several minutes or an hour.* In study-type reading, the learner gives special attention to the relationships between main ideas and supporting details and between relevant details

An adequate reading program provides for the development of skimming, rapid reading, and study-type reading in each curriculum area These combinations of skills must be *taught* systematically in situations where they are

required This part of the program cannot be left to haphazard incidental instruction.

Depth of Comprehension and Purpose. More recently considerable attention has been given to classification of reading techniques in terms of (1) assimilative and (2) critical reading This classification emphasizes the depth of critical thinking employed in the evaluation of reading material

A well-balanced program of developmental reading also promotes the pupil's ability to select reading techniques *appropriate* to his purpose The child is *taught* to use assimilative reading techniques for identifying facts and for obtaining general information He is taught to use critical reading techniques for the careful evaluation of ideas The *development of versatility in selecting* reading techniques in terms of purpose and attitude runs the gamut of a continuum from assimilative, or "sponge-type," reading to highly critical thinking.

Assimilative reading techniques are used by the child to identify facts and, perhaps, the point of view of the author Critical thinking takes place when an author's statements are evaluated in terms of personal experience and their relevancy to the problem. A broader base for critical reading is provided when more than one reference is used.

Assimilative and critical reading are not dichotomous Instead, depth of comprehension is a matter of degree Reading of the predominantly assimilative type emphasizes the identification and recall of facts Reading of the predominantly critical type emphasizes the higher thought processes having to do with the selection-rejection of ideas, the relationships between ideas, and the organization of information

The complex of abilities required for different types of reading calls for the development of considerable versatility. From available evidence, there appears to be a tendency to overemphasize assimilative reading techniques. *This*

overemphasis tends to promote verbalism which defeats comprehension.

Among other things, guidance in critical reading includes:

I 1. Selection and evaluation of information

A. Stating a problem

B. Evaluating reading selections in terms of the date of publication

C. Evaluating the author's competence for writing on the topic

D. Identifying the author's point of view

E. Identifying the author's motive (E g, Why did the author write? What does the author want the reader to do?)

F. Evaluating authenticity

G. Evaluating an author's statement in terms of his point of view

H Discriminating between statements of opinion and statements of verifiable "facts"

I. Evaluating the relevancy of different references on the problem

J. Evaluating the author's conclusion

K. Using inferences to arrive at a conclusion

1. Making generalizations from two or more related facts (E g , What are the "facts"? Are enough "facts" presented? Are the "facts" typical? Are the "facts" related to the conclusion?)

2. Making cause-effect inferences (E g , Can any other cause operate? Is the effect the result of a given cause?)

3. Evaluating the parallelism of elements in analogy

II Organization

A Visualizing "facts" (E.g., making friezes, lantern slides, maps, time "lines")

B. Following directions (E.g., performing an experiment, or constructing)

C. Listing or outlining sequences of ideas

1. Identifying main ideas of co-ordinate values

2 Identifying specific and co-ordinate ideas relevant to a main idea

D Summarizing a selection

III. Evaluation of language

A. Evaluation of different levels of abstraction

1 Classifying (E g , classifying *fruit* and *vegetables* as *food*)

2 Indexing (E g , identifying different kinds of *food*)

B. Evaluating shifts of meaning

1 Identifying the different uses of a word

2 Evaluating a dictionary definition in terms of the context for the word

C. Identification and interpretation of figurative language

1. Shifts from one physical context to another (E.g., the *foot* of a bed or the *foot* of a tree)

2. Shifts from a physical context to a psychological context (E g., *Spring is just around the corner*)

D. Translating indefinite terms into definite terms (E g., *huge, acre; near, first*)

E. Evaluating definite terms (E.g., 90 miles, 100 acres)

F. Discriminating between report language and emotionally "loaded" language (i.e., language used to report "facts" and to change attitudes)

Major Instructional Jobs in Reading

For discussion purposes in this chapter, the basic skills, abilities, attitudes, and information required for effective reading are organized under these headings: knowledge of when to read, location of information, selection and evaluation, organization, and comprehension and retention. Since these items are inextricably related, overlaps will be expected. For example, a discussion of comprehension will necessarily overlap

with discussions of selection, evaluation, and organization With this in mind, a brief discussion and inventory are offered on each of the major instructional jobs in reading

KNOWLEDGE OF WHEN TO READ

The development of reading ability and study habits is one of the guidance functions of all teachers One of the first goals is the development of the ability to judge when needs can be satisfied through reading This goal is reached by developing reading interests, by providing information on sources of facts and fiction, by acquiring facility in the use of other learning aids; and by a clear statement of the purposes of a given activity After all, reading is only one aid to learning and pupils must acquire judgment which will permit them to decide upon appropriate sources of information

Dr Roma Gans has emphasized the teacher's responsibility in guiding pupils (8, p 4)

As soon as *when to read* is interpreted in the light of helping pupils to read in order to satisfy personal interests or group problems, a discerning teacher at once sees that the curriculum must be so planned as to facilitate dealing with problems or units or larger experiences A vigorous, functional program of reading demands a vigorous functional curriculum—one in which pupils are guided in becoming increasingly sensitive to their persistent problems and one in which they grow through the use of adequate study to arrive at acceptable solutions to their problems They will learn when to go to a book for information, when to read poetry and other available literature, when to use the encyclopedia, maps and graphs, when to consult more than one reference book, when to refer to newspapers, magazines, and current materials, etc They will, of course, learn to recognize when to read and reread in order to improve their skill

The preparation of a group for a directed reading period or for the study of a unit in science or the social studies is one way of interpreting the maxim, "Begin with the learner's interests " If

this principle of teaching is not misinterpreted, the teacher will begin with the interests of her group and she will assume the responsibility of extending and directing those interests in terms of new class problems The danger lies in ending with the initial interests of the learner. Child development implies improvement in emotional as well as in intellectual and motor learnings

In connection with the development of knowing when to read, the following learnings should be considered:

1. Attitude of wanting-to-knowness
2. Ability to direct interests into profitable channels
3. Ability to formulate, or state, a problem
4. Knowledge of general sources of information, including reading materials
5. Skills in the use of other learning aids, such as observation, listening, conversation, interpretation of pictures, etc.
6. Knowledge of and ability to use rereading as a study skill

LOCATION OF INFORMATION

How to use books and libraries should constitute a substantial part of a plan for systematic instruction in reading at *any school level* Even in the days of a single basic textbook for a given class it was necessary to understand the purpose and location of various parts of the textbook and the dictionary. With recent emphasis on enrichment and on meeting out-of-school reading needs, a knowledge of how to locate information in other sources has become essential. In this connection, the following skills, abilities, attitudes, and information should be developed

I *Knowledge* of what information can be found in parts of books
II Ability to use table of contents
III Ability to find pages quickly
IV Ability to use index effectively and quickly
V Ability to use a glossary
VI *Ability to use chapter headings*

A TRIP TO AFRICA   *Seneca Falls, N.Y.*

Cora Mathews

VII. Ability to use paragraph headings

VIII. Ability to use an appendix

IX. Ability to skim rapidly to locate needed information

X. Ability to use cross references

XI. Ability to prepare a bibliography

XII. Ability to use keys and footnotes

XIII. Ability to use a dictionary
  A. Spelling
  B. Pronunciation
  C. Meaning
  D. Abbreviations

XIV. Ability to use an atlas, yearbook, and encyclopedia

XV. Ability to use maps, charts, tables, and other graphic representations

XVI. Ability to use the library effectively

Basic Knowledges and Abilities. It will be noted that these statements indicating the nature of this part of the instructional program are rather broad. Basic to some of these knowledges and abilities are such specifics as ability to alphabetize, ability to interpret certain diacritical marks, knowledge of how to open a book properly, knowledge of standard systems of classifying books, and the like. In addition to being aware of the need for developing these subskills, the teacher should plan to develop these skills and abilities in situations which have a real

purpose for the learner Every teacher usually finds it fruitful to guide pupils in making efficient and maximum use of information found in different types of references and in the various parts of books. First, however, the teacher should assure herself that the pupils know where specific information can be found and how it can be used. It is not safe for a teacher of science, social studies, or any other content field to assume that all pupils know about or how to find information contained in encyclopedias, dictionaries, and other study sources. It is an indictment against the teaching procedures to find pupils having difficulty with the pronunciation and meaning of technical words, who do not know that the book contains a glossary.

The following handbooks have been prepared for use by elementary-school children.

Bardwell, R. W. and Others. *Elementary English Handbook I and II* Boston: D. C. Heath, 1938.

Pooley, Robert C. and Others. *Handbook of English for Boys and Girls.* (Published under the authority of the National Conference on Research in English) New York Scott, Foresman and Company, 1939.

The following references on the use of books and libraries are valuable sources of information for teachers.

Mott, Carolyn, and Basden, Leo B *The Children's Book on How to Use Books and Libraries* New York Charles Scribner's Sons, 1937

Rice, O T *Lessons on the Use of Books and Libraries* New York Rand, McNally and Company, 1920

Thompson, Elizabeth H *A L A Glossary of Library Terms* Chicago American Library Association, 1943

The following is a list of dictionaries prepared for use by elementary-school children.

Ayres, Harry Morgan *A School Dictionary of the English Language* (For upper elementary grades) New York Silver, Burdett Company, 1935

Brown, Thomas Kite, and Lewis, William Dodge (editors) *The Winston Simplified Dictionary for Schools* Philadelphia The John C Winston Company, 1956

Funk, Charles Earle (editor) *Funk and Wagnalls Standard Junior School Dictionary* Evanston Illinois Row, Peterson and Company, 1940

Thorndike, E L, and Barnhart, Clarence L *Thorndike-Barnhart Beginning Dictionary* New York Scott, Foresman and Company, 1952

Vizetelly Frank H, and Funk, Charles Earle (editors) *The New Comprehensive Standard School Dictionary* New York Funk and Wagnalls Company, 1938

Webster's Elementary Dictionary New York American Book Company, 1956.

For children who are not ready to use a dictionary, the following reference will be a valuable aid

Staats, Pauline G, and Frazier, Clark M *The Right Word* New York Allyn and Bacon, 1937

SELECTION AND EVALUATION

In reading to understand the significance of material, the pupil should be helped to form habits of relating what is being read to previous information in order that he may arrive at some con-

clusions regarding the significance of the facts presented In such situations, the pupil not only understands and organizes the material he reads but also uses that material as a basis for making observations of his own regarding it and its relationship to other facts that he has retained.

In connection with the development of abilities to select and evaluate information, the following are some of the learnings requiring consideration:

I   Ability to associate new experiences with previous experiences

II Ability to appraise the adequacy of information in terms of the purposes of the reading

   A Ability to find the answer to a specific question

   B Ability to decide on the need for rereading or for consulting additional sources of information

   C. Ability to appraise a story in order to select parts appropriate for dramatization

   D Knowledge of the reputation of the author for presenting and interpreting facts

   E Ability to reflect

III Ability to use the table of contents, chapter titles, marginal and center headings for identifying the author's plan of relating his main ideas

IV. Ability to get the main thought

V. Knowledge of authentic sources of information

VI. Ability to separate relevant from irrelevant facts

VII Ability to draw correct conclusions

VIII. Ability to organize notes pertinent to a given problem

IX Ability to use typographical devices and other means used by the author to show relationships between ideas

   A. Ability to use headings, etc

   B Ability to note and use such signals as *then, next, first, finally,* etc.

ORGANIZATION

How information obtained from reading is organized depends upon the use to

which it is to be put or the nature of the problem. In one situation, reading may be done to secure specific answers to a given set of questions from a single source of information. This may call for a one-point outline listing the steps in an experiment or the kinds of foods that should be fed to the classroom pet. In another situation, information on a certain topic gathered from a number of sources may need to be organized. This may require an outline of the *pro* and *con* points or of carefully prepared paragraphs for contrasting and comparing opinions. And again, information may be sought to clarify a point in an art activity or a construction project For example, one third-grade class spent considerable time in reading before they could begin the final work on the development of a class-planned frieze In this case the problem was to find the relative proportion between a walrus and an Eskimo. Furthermore, reading may be done to prepare a dramatization. In short, the form for the organization of information is evaluated in terms of the needs to be served.

A Standard System of Notation A special point should be made here about use of a standard system of notation in outline forms. It is not uncommon to find elementary school pupils and high school students confused by too many systems of notation. This situation can be clarified by agreement on the use of one type of outline form throughout a school system. In one standard system, Roman numerals I, II, etc. are used to indicate main points, and capital letters the subtopics A two-point outline meets the reading needs of most children in the elementary school

A standard system of notation follows.

```
I
  A
  I
    a.
    (1)
      (a)

II
  A
  1.
    a. etc.
```


FILES ARE IN CONSTANT USE.   *Terre Haute, Ind.*

Mary D. Reed

Organizing Information The following
is a listing of some of the skills and abili-
ties involved in organizing information:

I. Ability to apply facts to a problem
II. Ability to perceive relationships be-
tween facts
  A Ability to identify the main idea in
  a unit of reading material
  B Ability to identify details to support
  the main idea
  C Skill and ability to relate main ideas
  and details in outline form
  D Ability to identify a sequence of events
  E *Ability to determine the relevancy
  of a given bit of information*
III Ability to organize information
read in the form of graphs, charts, maps,
tables, or an art project
IV Ability to evaluate a unit of reading
material for the purpose of abstracting
the central thought in summary form

V. Ability to organize data on the source
of information in bibliographical form
VI. Ability to discriminate between
crucial and incidental facts
VII. Ability to take notes

From the above, it is clear that the
ability to organize contributes to com-
prehension, retention, and effective study
habits Outlining, summarizing, and pré-
cis writing are only three forms for the
organization of information but they are
probably the most abstract In the kin-
dergarten and primary grades, the use
of a listing, or a one-point outline, and
summaries are the forms used Lists are
used to organize questions, information,
duties, reading center or library rules,
and the like Experience records of dif-
ferent types are useful for developing or-
ganization ability as well as other read-
ing abilities. *In addition to these more*

highly abstract means of organizing information, there are organizing procedures involved in building a cage for a pet, planning an art project, preparing an "orange-box" movie, planning a dramatization, and so on. Organization activities of these types enhance comprehension, facilitate remembrance, and further the development of good study procedures.

COMPREHENSION AND RETENTION

In developing reading comprehension, the "mechanics" of reading must be relegated to their appropriate place. Such mechanics as left-to-right progression, accurate return sweeps, and accurate word recognition skills are fundamental to reading but they must become automatic. Since some high-school and college students do not have control over the mere mechanics of the reading proc-

ess, they find themselves unable to achieve their possible maximum comprehension. Reading cannot be brought to full fruition as a learning aid until the mechanics have been controlled. On the other hand, a program of reading instruction designed to overemphasize the mechanics of reading fails the learner in his attainment of the goals of reading instruction.

At one time there was a tendency to view the primary-school job as "learning-to-read" and the subsequent job as "reading-to-learn." When factors of motivation were properly evaluated, however, it was clear that learning is more nearly effective when done in purposeful situations. Since the fallacy of the "learning-to-read" notion has been identified, the emphasis has been placed on "reading-to-learn" from the period of induction in reading on through school.

The following inventory of some of the factors in reading comprehension should serve to indicate the complexity of these abilities and the interrelationships among them

I Wide background of information

II Facility in using language

  A. Use of a speaking vocabulary adequate to deal with experiences

  B Use of a reading vocabulary adequate for general reading

  C Control over other aspects of language structure

    1 Sentence sense and the ability to deal effectively with the complexities of sentence structure

    2 Knowledge of and ability to interpret paragraph construction

      a Ability to use topic sentences as keys to the main idea of a paragraph

      b. Awareness of signals to anticipate contrasting ideas, e g , *yet*, *but*, *however*, *on the other hand*, etc.

      c. Awareness of signals to anticipate additional information, e g , *moreover*, *furthermore*, *in addition*, *besides*, etc.

      d Awareness of signals to anticipate the order of presentation, e g , *first*, *second*, *next*, *last*, etc.

    3 Ability to make use of the author's plan, or organization, of the content

  D. Ability to interpret punctuation with facility

III Ability to grasp meanings by acquiring control over language-fact relationships

  A Ability to get the "gist" of the author's meaning by noting topic sentences, reading the introduction of the chapter or the summary, etc.

  B Ability to grasp causal relationships

  C. Ability to visualize while reading

  D Ability to discriminate between inferences and descriptions of facts

  E. Ability to generalize

IV. Ability to use the context to identify the pronunciation or the meaning of a word

  A Ability to sense shifts of meaning brought about by changes of verbal context

  B. Ability to interpret metaphors

V. Ability to use word analysis techniques for the pronunciation of words; e g , configuration clues, picture clues, details of word forms, and phonics

  A Accurate recognition of printed symbols

  B Use of prefixes, suffixes, roots, etc.

VI. Ability to anticipate the meaning of a language unit or the outcome of a story

VII. Ability to read and to follow directions, e g , in a science experiment, construction activity, or some other problem-solving situation

VIII. Ability to read silently without vocalization, such as whispering, lip movement, and low vocal utterance

IX Ability to vary the rate of reading in terms of the purpose; i.e., to use skimming, rapid reading, and study-type reading as needed (versatility in the use of reading skills)

  A Ability to skim to locate needed information quickly

  B Ability to read rapidly for general impression, such as to discover an author's point of view

  C Ability to use study skills for identifying and relating details to the main idea of a paragraph or larger reading unit, such as locating specific information or critically appraising an author's point of view

  D Ability to adapt reading skills in terms of the reader's general familiarity with the content

X Ability to read rhythmically; i e , to phrase adequately

XI. Interest in new terms, words, or labels for facts within experience

XII. Interest in the content of a given selection

XIII. Ability to use reflection as a means of evaluation

XIV. Ability to grasp the author's mood, tone, and intent

XV Ability to draw inferences from the author's ideas; i.e., to read between the lines

XVI. Ability to judge the validity of the author's statements

A. Ability and information for discriminating between fact and opinion

B. Knowledge of the author's reputation as a writer

XVII. Attitude of reading for meaning; that is, of relating the author's language to facts within the reader's experience to solve a problem

XVIII. Appreciation of different types of literature

XIX. Ability to read in many fields, such as mathematics, science, and social science

XX. Ability to interpret maps, graphs, diagrams, schematic drawings, and the like

XXI. Ability to retain or remember what is read

A. Ability to relate facts secured from reading to experience

B. Ability to evaluate facts in terms of the purposes of the reading activity; i.e., to the problem to be solved

C. Ability to determine when rereading is necessary

D. Ability to select what to remember

E. Ability to synthesize ideas and to integrate them with the "whole" of previous experience

XXII. Ability to concentrate

A. Ability to establish and make use of strong purposes, or motives, for reading

B. Knowledge of how to reduce distractions, e.g., by establishing place and time schedules for reading and study free from radio, conversations, etc.

C. Ability to select material that is readable on a given topic

Purpose of Reading. It has been established in the literature of the subject that the purpose of reading governs rate and depth of comprehension. The continuation of activities involving reading for details may improve depth of comprehension but the rate usually decreases, whereas overdoses of reading for general impression may increase the rate and result in lowered retention of details. The overstressing of oral reading, especially when adequate silent reading prepara-

tion is not emphasized, may also contribute to deficiencies in comprehension. In view of this, it appears desirable at all levels of instruction to provide a balanced program in terms of the learner's needs.

Development of rate, accuracy, and depth of comprehension. To no small degree the purpose of the *reading controls comprehension.* Different types of *skimming* usually permit only comprehension of the general contents and organization of the materials. Main ideas and general impressions usually are secured by *rapid reading.* An understanding of details is acquired by *careful reading or study.* The rate, accuracy, and depth of comprehension are modified by the readability of the material. Rapid associations and thorough understanding are not produced by the first reading of unfamiliar material.

The pattern of reading habits used depends upon the purpose or purposes of the reading. It is, therefore, important that the learner identify his needs, whether there is a series of problems to be solved, a dramatization to be prepared, information to be reported to the class, an opinion to be verified or some other purpose for the reading. The mind set or readiness for a given reading activity also dictates the rate as well as the nature of the learning. In short, comprehension is controlled to a large degree by the purpose of the activity. The implication for the teacher is that questions over the materials should not remain a secret until after the reading; instead, the purposes should be established before the reading. To a great extent the formation of purposes should be a teacher and class co-operative affair and this means that the school work should be neither pupil nor teacher dictated. If the schoolroom is to be a real learning situation with child development as the keynote, the teacher will lead the children to progressively higher levels of achievement without posing as a living compendium of human knowledge. For example, valu-

able training and preparation can be secured by the careful statement, selection, and evaluation of class questions. In such an instance, the teacher directs the discussion into desirable channels and should not be expected to provide accurate information on all questions asked, instead, she should use these questions to guide the class in its study of authentic source material. Too often, children in a geography class do purposeless, humdrum, unmotivated wordcalling when they might be reading zestfully in order to answer worth-while questions of immediate concern to them.

Background of Experience. From the above listing of factors in comprehension, it is clear that reading is a "taking-to" process An individual understands what he reads when he takes a lot of experience to the printed page. This experience is of two types: experience with facts and experience with language. A primary-grade child will appreciate more fully a dog story if he has played with a dog and has discussed his pet with others. A child in the intermediate grades will have a greater appreciation of a story about George Washington, Daniel Boone, Eli Whitney's cotton gin, and the like, if he has read widely. In the primary grades, it is necessary for the child to take a good background of concrete, or direct, experiences to his reading As he matures in this aspect of language development, he will gradually acquire more ability to read creatively That is, he will be able to understand, or interpret, material more and more remote from his experience A background of experience with facts and with language is essential to comprehension

Creative Reading. In a sense, all reading is *creative. Understanding comes from* reconstructing the things for which the visual symbols stand When reading about Tike, the frisky dog, the primary-school child ties the symbol *dog* to the illustration of Tike and to his previous experiences *with dogs* This kind of creative interpretation is at a low level

because it is done in terms of direct experience. As the child extends *his direct* and indirect, or vicarious, experiences, he learns how to interpret visual symbols that are beyond his immediate, direct experience. This higher level of creative interpretation is dependent upon time concepts, geographical concepts, and a knowledge of people and events of long ago or of some other place in the world. Creative interpretation at high levels makes it possible for the individual to appreciate the significance of things and events through mental images.

The ability to interpret and to understand what is read is based on direct experience Superimposed on this direct experience is vicarious, or indirect, experience. Vicarious experience is obtained from listening to discussions, viewing pictures, and reading. In developing comprehension, the teacher has the job of guiding the child in calling on his previous direct and vicarious experiences Reading is creative in the sense that the individual can create, or call forth, mental images of things not observed directly.

Vocabulary Development. Vocabulary is developed through wide, varied, and rich experiences with facts; wide reading; use of words in listening, conversing, reading, and writing; and the systematic study of words. Environment plays a major role in vocabulary development. In a poverty-stricken home or school environment, the communication needs of the individual may be satisfied with a very meager vocabulary On the other hand, a rich intellectual and emotional environment creates more language needs for effective communication. Through listening, speaking, reading, and writing, *the individual* acquires recognition and control over the use of words as a part of his pattern of living. First, then, vocabulary is *enriched through direct* contact with facts—i.e., rich, direct, and significant experiences Second, vocabulary is developed through a need for oral communication about experience. Third,

EVALUATING THE INFORMATION

Ottawa Hills, Ohio

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vocabulary is further extended by wide reading—vicarious experiencing. Fourth, vocabulary is put under more precise control when used to communicate through writing. It is, therefore, largely to the degree that vocabulary is required to function in communication situations that needs arise and growth occurs. Needs may dictate systematic study.

Word Recognition. One of the stumbling blocks to comprehension is a lack of word-recognition ability. Through orientation discussions preceding the reading of a selection, the teacher can appraise the child's oral control over vocabulary. Printed symbols, however, are farther removed from experience than the spoken word. To become independent in reading, the child must be taught systematically how to use word-analysis skills, syllabication skills, and the dictionary

When word-recognition skills are neglected, comprehension is bound to suffer.

Reading in Different Areas. Since reading is a process, it can be generally stated that reading has no subject matter of its own. One must have something to read about. Furthermore, recent studies indicate the need for the development of vocabulary and specific skills and abilities in each area such as mathematics, science, and social science. The fact that an individual can read literary-type material efficiently is no guarantee of success in the reading of a geography or a science book. Growth in comprehension is promoted when the child is guided in a school activity involving reading.

Reading Between the Lines. Comprehension is reduced when the child is given opportunities to do only literal-type interpretations that are guided by straight-

out factual questions. The writer has worked with a number of children who had never read critically. Inferential-type reading—or reading between the lines—often is essential in discovering an author's point of view, in comparing and contrasting opinions, in judging the validity of an author's opinions, and in applying information. With the mass of propaganda shot at consumers today by vitamin manufacturers, patent medicine dispensers, political organizations and the like, it is apparent that children must be taught how to make critical interpretations.

Attainment of Goals

How can these goals of reading instruction be achieved? In the average school situation, systematic reading instruction is provided through directed reading activities in which basal textbooks are used and through guidance in everyday reading activities. When basal textbooks are used in any school activities, the pupils must be grouped in terms of their abilities in order to use the books effectively. Through unit-type teaching, individual differences are placed at a premium. As teachers increase their professional competence through advanced professional courses, the regimented use of textbooks becomes less of an issue. The double-barreled approach to reading instruction—that is, directed reading periods and guidance in everyday activities—must be incorporated in the program of the average school at all grade levels, elementary and secondary.

Primary teachers cannot be held wholly responsible for the achievement of these goals because there will be some children who do not have sufficient mental maturity for initial reading instruction and the very best pupils will hardly be past the crawling stage in critical interpretation. In fact, the goals of reading instruction described herein cannot be achieved by every teacher with every child. Intermediate grade teachers can-

not complete the job of achieving the goals of reading instruction because the variation in reading abilities will be wider than at the end of the third grade. All high-school and college teachers—if they are to fulfill their obligations—must continue to be concerned with the goals of reading instruction. Individual differences and continued growth in experience and language power make systematic reading instruction a perennial instructional job.

Summary

This chapter is an outline and a discussion of the major instructional jobs in reading. While there is an urgent need for more research in this area, educators are provided with a substantial amount of information on the specific nature of the goals of reading instruction.

The following summarizing statements give the gist of this discussion:

Reading is only one learning aid and, therefore, should be buttressed with the use of other means, such as visual and auditory aids, *direct observation, experimentation,* and discussion.

Guidance in both silent and oral reading is required in a well-balanced instructional program.

Guidance in reading should promote the use of skills, abilities, attitudes, and information for obtaining worth-while recreation and valid information.

This discussion has centered around teacher goals established to guide the learner in his goal-seeking behavior.

The purposes and objectives of traditional instruction in reading contributed to regimentation, to compartmentalization of instruction, to the stifling of interests, and to the termination of reading instruction at the lower school levels.

The purposes and objectives of modern instruction in reading have tended to emphasize critical interpretation, the perennial nature of reading instruction, the development of worth-while interests

and attitudes of approach, and the *social uses* of language.

The major instructional jobs include guidance on *when* to read as well as *how* to read.

In translating the goals of reading instruction into practice, the primary problem of caring for individual differences asserts itself in all areas of modern instruction

22 Salisbury, Rachel A *A Study of the Effects of Training in Logical Organization as a Method of Improving Skill in Study* Doctor's Dissertation Madison, Wisconsin University of Wisconsin, 1934

23 Schonell, Fred J *Backwardness in the Basic Subjects* Toronto Clarke, Irwin and Company Limited, 1952

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25 Shores, J Harlan *Reading and Study Skills as Related to Comprehension of Science and History in the Ninth Grade* Doctor's Dissertation Minneapolis, Minnesota University of Minnesota 1940

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29. Tyler, Fred T. "Organismic Growth' Sexual Maturity and Progress in Reading," *The Journal of Educational Psychology,* XLVI, No 2 (February, 1955), pp 85–93

30 Tyler, Ralph W. "Measuring the Ability to Infer," *Educational Research Bulletin,* IX, No 17 (November 19, 1930), pp 475–80

31 Vinacke, W. Edgar "Concept Formation in Children of School Ages," *Education,* LXXIV, No 9 (May, 1954), pp 527–34

32 Vinacke, W Edgar *The Psychology of Thinking* New York McGraw-Hill Book Company, Inc , 1952.

33 Witty, Paul *Reading in Modern Education* Boston, Massachusetts, D C Heath and Company, 1949

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33 Witty, Paul *Reading in Modern Education* Boston, Massachusetts D C Heath and Company, 1949

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35 Yoakam, Gerald A *Basal Reading Instruction* New York McGraw-Hill Book Company, Inc , 1955

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classified. Remedial measures for each disability have been formulated, tested, and approved for use by any teacher who desires to avail himself of such materials. With all these improvements, there is still a significant proportion of children in the first grade who are unable to use reading as a means of acquiring a rich and varied experience, who do not build strong motives for and permanent interests in reading, and who do not acquire sufficient skill to enable them to use reading as a tool commensurate with the time and effort spent in attempting to develop it.

To a minority of interested teachers there seems to be an important factor in the reading situation which has not been fully considered. This is reading readiness, which may be defined as the quantity and quality of desire to read brought to the process naturally or built up inductively by the teacher and pupils previous to or simultaneously with the beginnings of the actual reading process. This initial readiness of pupils is intimately related to intelligence, maturity, and area and depth of experience. To fail to teach reading to a child who has keen interest in and desire for reading is considered unsound practice. To attempt to teach reading to children who lack readiness due to meagerness of previous experience is equally undesirable. For them the reading problem is not one of building eco-

nomical and effective habits and skills, but of providing a program of work directly related to their interests, varied in approach and scope, rich in area and depth of content, and so meaningful that the desire to read may follow normally as a means of making subsequent experience richer

THE WHOLE CHILD

Throughout the ages, the development of the whole child has been stressed and restressed by great thinkers. As a result, our concepts of education are being refined; the findings of scientists are being translated into school practices; variations among individuals are being accepted as a challenge; and the basic principle of education that effective instruction begins where the learner is has assumed additional meaning for those interested in child development. This enlarging concept of the "whole child" has inspired discussions among teachers regarding the types of needs in a given group of children Within a given group at the primary level, the varying emotional maturity may be reflected in the enjoyment of recreatory reading materials. For example, a few pupils may en-

Every one has noticed such differences among adults as well as among children. Moreover, certain of these traits show some tendency to occur together. The child who likes to hold the center of the stage is also likely to be talkative, to take the lead in play if he can, to be alert and responsive to what is going on around him. Because he is very alive to the changing circumstances of his environment, he is not likely to stick to any one activity for long at a time. Physically he is usually active. Emotionally he is a creature of the moment, now up, now down. He is easily excited and more often shows anger than fear.

At the opposite extreme we have another group of children who are more quiet. They withdraw from the group wherever possible. If urged to join in the play, they have little to say, and simply do as they are told or refuse to do anything at all, but rarely do they attempt to assume leadership. Often they seem to become much engrossed in some occupation of their own and persist in it for long periods of time, paying no apparent attention to what is going on about them. They are likely to be shy, often to the point of timidity or actual fearfulness. They are less subject to violent outbursts of anger than the children described in the last paragraph, but if their wishes are crossed they are likely to become stubborn and sulky.

A mental, emotional, and physical readiness for sustained reading activities possesses as much significance in a modern secondary school as it does in a modern primary school. No longer is the term "reading readiness" confined to the thinking of kindergarten and first-grade teachers. Since reading is a complex process which is developed continuously for higher levels of usefulness, readiness for reading activities is an ever-present factor even for the teacher in the upper-intermediate grades and early junior-high-school years. Many of the nonreaders in the upper elementary-school grades, of course, present quite different reading-readiness problems than either they or their classmates presented in the kindergarten or first grade. As long as the nonreading situation persists, the emotional aspects

continue to accumulate. When the facts are faced squarely, all elementary teachers must be professionally prepared to deal with readiness for systematic reading instruction.

Begin Where the Pupil Is. Many reading difficulties can be prevented if adequate attention can be given to reading readiness in the first grade. A few children may have an elementary command over the reading process and some may not be ready to read at the end of the first grade. The wise second-grade teacher will accept the fact that there will be a greater range of reading abilities (from zero to perhaps third-grade level) among children at the beginning of their second year in school than there was upon admission to the first grade. This always has been true and will likely continue to be true. A careful study of reading-readiness factors should result in the prevention of reading difficulties by giving the teacher bases for beginning instruction where each pupil is.

In the editor's introduction to Miss Lulu Wright's excellent book on *Units of Work: A First Grade at Work*, Professor L. Thomas Hopkins made this well-considered summary of the reading situation at the first-grade level (13, pp. ix–x):

The majority practice in elementary education supports a first-grade curriculum with reading as the center. Great forward strides have been made in the teaching of this subject during the past fifteen years, for in no other field have the investigations been so numerous and have the results been so readily available to interested teachers. The traditional aims have yielded to new ones, stressing the development of a rich and varied experience, the building of strong motives for and permanent interests in reading, and the formation of economical and effective habits and skills. More up-to-date, modern methods of instruction in harmony with the best psychological theories and experimentations are now being used. In many instances definite standards of attainment have been determined and objective methods of measurement have been developed. Special disabilities of individual children have been charted and

not prepared for reading to those who have already achieved some success with reading activities. No scientist has been able to devise any one single basis for a *yes* or *no* answer to the question of when is a child ready for reading instruction.

Readiness does not come packaged as that something that is here today but was not present yesterday. The attainment of a given chronological or mental age (such as six and one half years) does not insure success with reading activities And again, a rich background of experiences coupled with a reasonable facility with language may not be brought into play in the reading situation because of an emotional blockage or some type of physical handicap. Teachers are given years of preparation for their tasks because many learning factors are elusive and require expertness if dealt with successfully.

In 1898, John Dewey discussed the problem of when a child is ready to read in terms of "The Primary-Education Fetich." John Dewey's challenge is expressed in the following selected paragraphs (3):

It is some years since the educational world was more or less agitated by an attack upon the place occupied by Greek in the educational scheme. If, however, Greek occupies the place of a fetich, its worshippers are comparatively few in number, and its influence is relatively slight. There is, however, a false educational god whose idolaters are legion, and whose cult influences the entire educational system. This is language-study—the study not of foreign language, but of English; not in higher, but in primary education It is almost an unquestioned assumption, of educational theory and practice both, that the first three years of a child's school-life shall be mainly taken up with learning to read and write his own language . . .

What can be said against giving up the greater portion of the first two years of school life to the mastery of linguistic form? In the first place, physiologists are coming to believe that the sense organs and connected nerve and motor apparatus of the child are not at this period best adapted to the confining and

analytic work of learning to read and write. There is an order in which sensory and motor centers develop,—an order expressed, in a general way, by saying that the line of progress is from the larger, coarser adjustments having to do with the bodily system as a whole (those nearest the trunk of the body) to the finer and accurate adjustments having to do with the periphery and extremities of the organism The oculist tells us that the vision of the child is essentially that of the savage, being adapted to seeing large and somewhat remote objects in the mass, not near-by objects in detail To violate this law means undue nervous strain it means putting the greatest tension upon the centers least able to do the work At the same time, the lines of activity which are hungering and thirsting for action are left, unused, to atrophy The act of writing—especially in the barbarous fashion, long current in the school, of compelling the child to write on ruled lines in a small hand and with the utmost attainable degree of accuracy—involves a nicety and complexity of adjustments of muscular activity which can be definitely appreciated only by the specialist. As the principal of a Chicago school has wittily remarked in this connection, "the pen is literally mightier than the sword " Forcing children at a premature age to devote their entire attention to these refined and cramped adjustments had left behind it a sad record of injured nervous systems and of muscular disorders and distortions While there are undoubted exceptions, present physiological knowledge points to the age of about eight years as early enough for anything more than an incidental attention to visual and written language-form.

We must not forget that these forms are symbols I am far from depreciating the value of symbols in our intellectual life It is hardly too much to say that all progress in civilization upon the intellectual side has depended upon increasing invention and control of symbols of one sort or another. Nor do I join in the undiscriminating cry of those who condemn the study of language as having to do with mere words, not with realities Such a position is one-sided, and is as crude as the view against which it is a reaction But there is an important question here: Is the child of six or seven years ready for symbols to such an extent that the stress of educational life can be thrown upon them? If we were to look at the question independently of the existing

joy *Mother Goose Rhymes* or Edward Lear's *Nonsense Verse*, some may appreciate A. A. Milne's *Vespers*, while others may be thrilled by *Heidi* or *Pinocchio* The levels of mental maturity may present an equally wide range, some being able to grasp concepts that might challenge the thinking of the average twelve-year-old Again, the physical needs may evidence widely varying clusters of handicaps—a few unable to see the writing on the blackboard, some with eye-co-ordination difficulties, and many with normal seeing; a few unable to hear gross sounds, some incapacitated for hearing speech or musical sounds characterized by certain pitches, while most of them will be normal, some with nutritional deficiencies and others with glandular imbalances, residuals of children's diseases; and a multitude of other variations in physical development Each child varies from his mates along each of these lines, and requires an understanding and inspired teacher who can provide guidance in the larger sense

Readiness for systematic reading instruction requires a considered appraisal of the developmental status and needs of the whole child No one reading-readiness factor has proved to be an adequate basis for predicting individual success in reading activities This point of view has been given practical application by M Madilene Veverka and her associates (11, p 15)

> This statement is not yet definitely established There are too many factors involved It is not a matter of age nor yet of I Q It is not mental maturity alone Biological factors enter Personality traits are important Background of a home with understanding parents helps An interested attitude toward books and reading is also important A good oral vocabulary is needed Experiences with things, people and situations and understanding and comprehension
> A certain vitality and dynamics of the whole organism enter into the picture. It is not any special group of these items nor any limited amount of them It is rather a combination and balance of these which result

in or indicate a stage of growth at which this new experience is appropriate

We like to think of this point in growth as a place at which the child's total living in a society of his peers would be dwarfed and inadequate with reading left out. It seems to be a point below which the lack of reading deprives him of nothing, but above which inadequacy, infantilism, inferiority feelings, being different from his little friends, the cutting off of a rich field of experience, might begin to set in

In Los Angeles schools we have set up the following factors as guides to teachers in determining the point at which reading may begin with promise of success· (1) A mental age 76–80 months, (2) A rich background of experience, (3) An adequate oral vocabulary, (4) The ability to speak in sentences, (5) Good sight and good hearing, (6) Normal health, (7) Emotional stability, (8) Ability to adjust socially to the group

The relationship of reading-readiness factors to the school program has been briefed by Smith and Jensen (12, p. 583):

> Reading readiness means the maturation of all the mental, physical, and emotional factors involved in the reading process Regardless of the chronological age of the child, the point at which the child's growth and development have brought about proper maturation of these factors should be the point at which the reading process begins To take wholly into account these factors would necessitate changes in the school curriculum and school program in order to adjust instruction to the needs of each child and to make provision for many more types of educational activity at the first-grade level The adoption of such a program would undoubtedly eliminate much of the present retardation and remedial work necessarily carried on in the majority of schools

When Shall a Child Read?

The question of when should the child read is asked often with the idea that a *yes* or *no* answer can be given. As there are all shades of gray between black and white, there are many shades of readiness. First-grade entrants vary all the way from those who are very definitely

school system, in the light of the child's natural needs and interests at this period, I doubt if there could be found anyone who would say that the urgent call of the child of six and seven is for this sort of nutriment, instead of for more direct introduction into the wealth of natural and social forms that surrounds him. No doubt the skillful teacher often succeeds in awakening an interest in these matters, but the interest has to be excited in a more or less artificial way, and, when excited, is somewhat factitious, and independent of other interests of child-life. At this point the wedge is introduced and driven in which marks the growing divorce between school and outside interests and occupations.

Methods for learning to read come and go across the educational arena, like the march of supernumeraries upon the stage. Each is heralded as the final solution of the problem of learning to read, but each in turn gives way to some later discovery. The simple fact is, that they all lack the essential of any well-grounded method, namely, relevancy to the child's mental needs. No scheme for learning to read can supply this want. Only a new motive—putting the child into a vital relation to the materials to be read—can be of service here. It is evident that this condition cannot be met, unless learning to read be postponed to a period when the child's intellectual appetite is more consciously active, and when he is mature enough to deal more rapidly and effectively with the formal and mechanical difficulties.

Just a word about the corresponding evils. We have to take into account not simply the results produced by forcing language work unduly, but also the defects in development due to the crowding out of other objects. Every respectable authority insists that the period of childhood lying between the years of four and eight or nine, is the plastic period in sense and emotional life. What are we doing to shape these capacities? What are we doing to feed that hunger? If one compares the powers and needs of the child in these directions with what is actually supplied in the regimen of the three R's, the contrast is pitiful, tragic. This epoch is also the budding-time for the formation of efficient and orderly habits on the motor side: it is pre-eminently the time when the child wishes to do things, and when his interest in doing can be turned to educative account. No one can clearly set

before himself the vivacity and persistency of the child's motor instincts at this period, and then call to mind the continued grind of reading and writing, without feeling that the justification of our present curriculum is psychologically impossible. It is simply a superstition; it is a remnant of an outgrown period of history.

One year after John Dewey issued his challenge, Professor Patrick published his conclusions regarding the question, "Should Children under Ten Years Learn to Read and Write?" These selected paragraphs from Patrick's article serve to buttress Dewey's point of view (10):

There are certain propositions about education so evidently true that probably no parent or teacher would question them. For instance, the best school is one in which the course of study is progressively adapted to the mental development of the children. Again, certain subjects are adapted to children of certain ages or stages of development, and others are not. One would not recommend the study of logic or of the calculus to the average child of ten, nor would the teaching of English be much deferred until the age of fifteen. Finally, if the courses of study in our present school system shall be found to be arranged without regard to the order of mental development, they will sooner or later be modified in accordance with it.

We must conclude, therefore, if our educational system is a rational one, that reading, writing, and arithmetic are the subjects peculiarly adapted to the mind of the child between the ages of five and ten. It is worth while to inquire from the standpoint of child psychology whether this be true. It should be observed, in the first place, that the manner in which our educational system has grown up is no guarantee that it rests upon a psychological basis. Our schools are exceedingly conservative. Any innovations or radical changes are resisted by the parents of the children even more strenuously than by school boards, superintendents, and teachers. Notwithstanding numerous and important minor improvements, the school system as a whole remains unchanged. Our children of seven and eight years are learning to read

not formulated what was done during the reading act. To them it may have been just a game of making up an interesting story. Others may not have been in a home environment where even a newspaper is taken or where books or magazines are read. This general type of first-grade entrant presents a full-fledged reading-readiness problem that, in some cases, requires careful study.

10 Those who prefer to use the left hand for unmanual activities such as handwriting. In some cases, however, a clearcut right-or-left-hand preference may not be indicated. While the relationship of hand preference and of cerebral dominance to reading proficiency is a moot question, it is generally agreed that a child should use the preferred hand for unmanual activities.

In addition to the above mentioned types of pupils admitted to first grade, the teacher in many situations may expect to find a crop of failures from the preceding year. In rare instances, these failures may be of two years' standing While, in the main, a high percentage of failures cannot be justified, these conditions do exist, especially in schools characterized by a high degree of regimentation These repeaters require careful guidance in order to revise their attitudes toward school, and especially toward reading. Furthermore, the teacher has a problem in the selection of suitable materials because it is not wise to repeat with the same materials that were used in the frustrating situation.

Summary

The chief purpose of this chapter was to point out the wide range of prereading needs which have a bearing on the time at which systematic reading instruction is initiated Some of the important points in this chapter are summarized in the following statements:

Systematic guidance should be provided for parents so that they will have a basic understanding of reading readiness, of the wide range of differences, and of the procedures for developing reading readiness.

Reading readiness is a fundamental problem to be considered at all school levels.

Reading-readiness factors are the keystone for a preventive program.

Children who are not ready for systematic instruction in reading may be found throughout the primary grades.

For discussion purposes, reading-readiness factors have been classified as social and emotional, mental, and physical.

A child is ready for systematic reading instruction when he can engage in such activities with success and with real satisfaction to himself.

Because each first-grade entrant is unique unto himself, the first-grade teacher is presented with a mosaic of personality problems.

Individual differences in readiness for reading make mandatory differentiated guidance in reading-readiness activities.

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like may place serious limitations on mental and emotional adjustments. Second, it should be clear that the child's ability to do "abstract thinking" may deviate considerably above or below that of his classmates and, therefore, condition his relationships with others in his society. Third, emotional stability reflected in social adjustment and work habits contributes to academic achievement and sometimes to physical status. Fourth, mental, physical, and emotional efficiency are highly related and contribute to the development of that achievement difficult to assay; namely, personality. Children are in need of educators who are prepared to act in these terms.

For the educator there is no possibility of dividing the learner into the mental, emotional, and physical categories These are only labels given to certain facets of a whole. This does not mean, however, that a teacher has the obligation to master all information pertaining to the whole child. Quite the contrary, the educator must be sensitive to these facets of learning problems, and he must depend upon interprofessional co-operation. Enough attention has already been directed to the total needs of the learner to make clear the necessity of collaboration.

In a discussion of factors influencing reading readiness, M. Lucile Harrison notes (27, pp. 8–9):

> In addition to the generalized factor of mental age there are certain particular organizations within the nervous system which are necessary for reading success. They are (1) the ability to see likenesses and differences, (2) the ability to remember word forms with freedom from aphasias and word-blindness, (3) memory span of ideas, (4) ability to do abstract thinking, and (5) the ability to correlate abstractions with definite modes of response as this ability is related to the reading process.

In the *Teaching of Reading, A Second Report*, W. S. Gray identified seven essential prerequisites to reading (67, pp. 81–85):

1. Wide experience.
2. Reasonable facility in the use of ideas
3. Reasonable command of simple English sentences
4 A relatively wide speaking vocabulary
5. Accuracy in enunciation and pronunciation
6. Reasonable accuracy in visual and auditory discrimination
7 Keen interest in learning to read

Attention has been directed to this whole problem of reading readiness because so very many children are not ready to read upon the attainment of the legal age of six years for admission to first grade This situation has led to the study of differences in readiness for reading and the ways and means of giving intelligent recognition to these differences in the classroom. If all children were alike, the professional preparation of teachers would be a relatively simple matter. But differences and combinations of differences are actualities, hence the professional preparation of teachers is a continuous job.

The teaching of reading to beginners would be a less complex task if every child could meet these requirements·

1. Immediate needs that require satisfaction through reading
2. Sufficient prereading experiences to whet the reading appetite and to be aware of the significance of visual symbols
3. A social adjustment sufficiently adequate to cope with give-and-take situations in the average classroom
4. A chronological age which would have made possible a general development of the organism sufficient to cope with reading activities
5. An interest in and good attitudes toward reading
6. A level of mental maturity that would insure a reasonably rapid rate of learning
7. A background of information pertinent to that which he is to read
8. Language facility adequate to deal with direct and vicarious, or second-hand, experience

The factors which greatly influence reading readiness are many
and of a complex nature, and are often so involved and inter-
woven that it is difficult to determine what single factor or group
of factors bears most significance to the condition known as readi-
ness for reading   M. LUCILE HARRISON (27, p. 5)

Interrelationships Among
Factors

The development of reading ability is
primarily a problem in language. When
a child is ready for reading, he has ac-
quired a fund of information from his ex-
periences and he has developed reason-
able facility in the use of language for
the purpose of dealing with those experi-
ences In order to profit from past experi-
ences, the child must be mentally alert
and have the necessary capacities to
"take in" those experiences. For ex-
ample, low mentality, blindness, and
deafness contribute to retardation in
language development. Through wrong
evaluations on the part of the child or of
those who are guiding his development,
emotional distortions may enter into the
situation In short, while readiness for
reading is usually discussed in terms of
mental, emotional, and physical factors,
the teacher must be alert to the crux of
the problem, namely, language develop-
ment

That mental health and physical health
are interdependent has frequently been
demonstrated Children often are brought
to a reading clinic who do not have
physical readiness for directing their at-
tention to activities in poorly lighted and
inadequately ventilated classrooms for

four or five hours per day. Such cases
have been characterized by glandular
anomalies, decayed teeth, infected kid-
neys and tonsils, defective hearing, and
inefficient vision not detected by means
of the meager equipment of the school
nurse Obviously, the correction of
physical difficulties is not a substitute for
instruction, but every child has the right
to health and physical efficiency. Chil-
dren with visual and hearing handicaps
should be seated in the front of the room,
defective hearing in the right ear requires
seating on the left side of the room, and
a defective left ear requires seating on the
right side To expect a physically handi-
capped child to take pleasure in learning
would be about as reasonable as to ex-
pect a blind person with blisters on his
fingers to enjoy reading Braille.

No discussion of readiness for reading
is well-rounded until the specifics of
mental, physical, and emotional factors
have been identified and their interrela-
tionships studied Too often these three
major factors are mentioned in passing
and the discussion centers on the prob-
lem of mental and sometimes emotional
readiness for reading. First, it should be
understood that the physical status of
the child should be such that he can
"take in" with his contemporaries Sus-
ceptibility to fatigue, frequent infections,
visual and hearing handicaps, and the

will recall that most parents still think of the first grade as the place where everyone learns to read!) When Sally was brought to the Reading Clinic, the writer was able to give a reading-readiness test in about one half the time usually required for six-year-olds. Superior results were obtained. On the other hand, Sally's social maturity was not commensurate with her mental maturity. During the time Sally was in the Clinic, it was learned that she preferred to play with dolls rather than to look at books. In an interview with the mother, additional information was obtained to the effect that Sally had not learned to play with other children and that it was the mother who had needs to be satisfied by Sally's learning to read!

In some types of home situations, certain children do achieve substantial reading ability at four and five years of age. The environment and the child's capacity to achieve combine in such a way as to produce a type of need. A few four- and five-year-olds—and possibly six-year-olds—have needs that can be satisfied through reading. When reading is put on a scale of values for children of these ages, it usually ranks well down on the scale. There is too much to be done in developing a wholesome social being and in building a rich background of experiences during these early years that precludes the placement of reading ability at the top of a scale of relative values.

PREREADING SCHOOL EXPERIENCE

Several studies have been made over a period of many years on the relationship of kindergarten experiences to achievement in the elementary schools. Most of the studies indicate that children with kindergarten experience tend to excel non-kindergarten children. While the kindergarten has many justifications other than direct preparation for reading activities, kindergarten experience does appear to be a significant factor in readiness for reading.

Prereading school experiences may contribute substantially to the development of the awareness of the significance of visual symbols. It should not be taken for granted that children know that visual symbols represent things within their experience. Children who have not had their attention directed to the meaning of labels, signs, and the print marks in books may have no notions, or only hazy ones, about the meaning of symbols. Prereading experiences can go a long way toward developing this aspect of readiness for reading.

SOCIAL ADJUSTMENT

One of the chief goals of education is social adjustment; hence, one of the primary factors to be considered in readiness for reading is social adjustment. Personality is something to be achieved. Emotional conditionings during the preschool years and the early school years appear to contribute substantially to personality. Desirable adjustment is reflected in self-confidence, persistence, ability to concentrate attention on the task at hand, desirable school attitudes, and general emotional stability.

Personality problems appear to influence behavior in reading situations in two ways. First, the personality of the beginner may facilitate or interfere with adjustment in reading activities. Second, inability to succeed in reading situations may produce undesirable personality traits. In short, personality characteristics may be causal or they may grow out of the reading situation. In any event, they are important factors for the teacher to consider.

Investigators of the relationships between personality and reading adjustment have described the behavior of reading disability cases as antisocial, timid, shy, eccentric, irrational, impetuous, excitable, nervous, dreamy, distractable, quarrelsome, and craving for attention. It should be understood, however, that these types of behavior may also characterize "good" readers, though to a somewhat lesser degree. While there

9 Ability to relate ideas accurately and
rapidly

10 A memory span that would insure
competency in following directions and
in relating experience pertinent to that
which is being read

11. Ability to hear sounds sufficiently
well for normal communication

12 Ability to make auditory discrimina-
tions sufficiently well to acquire phonic
techniques for word recognition

13 A level of visual efficiency sufficient
to permit the rapid development of spe-
cific visual skills required in reading

14 Ability to make visual discrimina-
tions sufficiently well to acquire reason-
ably rapid control over sight word and
visual analysis techniques

15 Ability to perceive differences in
color so that such words as "red" and
"blue" represent phenomena within his
experience and so that experiences gained
from reading may be applied in work-
book and art activities

16 Motor control sufficiently developed
to permit efficient eye movements, to
facilitate the handling of books, and to
make possible participation in construc-
tion and physical activities

17 An integrated nervous system free
from defects that would interfere with
learning, such as speech disorders, con-
fused dominance, and word blindness

18 A general health status that promotes
a feeling of well-being and an attitude of
approach to, rather than withdrawal
from, worth-while learning activities

Factors in Reading Readiness

Cultural Readiness. In an unpublished
manuscript prepared in 1935, Dr. Lu-
cile Allard, Director of Elementary
Education, Garden City, Long Island,
New York, called attention to what she
called *cultural readiness* for reading Here
are some excerpts from her comments
and suggestions

Schools for little children should be full of
thrills, beauty, and happiness, and where
homes include little of the better things of
life, schools should provide them.

Beginning learnings and preparatory pe-
riods for further learnings cannot be held in
narrow, specific areas of subject matter; the
preparatory periods for learning go on and
on through life.

It would seem short-sighted to assume that
there should ever be a lack of readiness in the
young child for *wanting to know* unless the
method and materials of teaching were, to a
large extent, outside the child's interest and
experience

The rooms in which children are to live in
school should be made attractive with pic-
ture-books and objects of beauty. How can
children have taste and discrimination if they
never or rarely have contact with beauty?
When feeling and appreciation for the beauti-
ful have come into the lives of children and
they realize that more of what they have
already known and enjoyed can be brought
to them through the printed word, or that
more help for what they want to do can be
found in books, they will *want* to read. That
is cultural readiness

LEARNER NEEDS

One of the chief factors in readiness
for reading at any school level is that of
learner needs. When learning is not
motivated through needs, then learning
activities deteriorate into sheer mechani-
cal drill. At the kindergarten-primary-
school levels, teachers and parents should
ask themselves, "What needs does this
child have that must be met through
reading activities?"

The writer has worked with parents
who have insisted that their children
were ready to read and, therefore, should
be pushed into the first grade at four or
five years of age. In some instances, these
children have exhibited superior per-
formance on tests of mental readiness for
reading; however, some of them were not
physically ready and a large number
were in greater need of social adjustment

In one instance, the mother insisted
that her very bright five-year-old should
be reading, and, therefore, should skip
the kindergarten activities and be ad-
mitted to the first grade. (The reader

in reading. This matter of developing a real interest in reading then becomes a factor in reading readiness that the teacher must put on his list of "firsts." If little or no interest is manifested in books, stories, poems, verse, and rhymes, the teacher must tactfully bring the children in contact with them in such a way that a desire to read is stimulated.

Poor attitudes toward reading may stem out of undesirable home conditions or from unfortunate prefirst-grade experiences. Some parents feel it to be their duty to teach the child to read before he enters school so he will "make a good showing." This is usually done with good intentions but in ignorance of the possible consequences. Then, too, a misguided kindergarten teacher may assume the responsibility of getting the pupils ready for the first-grade teacher by imposing beginning reading activities upon all the children. On the other hand, many first-grade children will acquire desirable attitudes toward reading because these will have been fostered properly in the home and in the kindergarten

CHRONOLOGICAL AGE

The age of the child is used as the chief basis for admission to the kindergarten or first grade. It is well known, however, that a substantial percentage of children

DEVELOPING INTEREST IN READING

Public Schools   Salt Lake City, Utah

are no dramatic data to point to personality factors as determinants to reading achievement, it does appear that social adjustment is positively related to success with reading activities.

After summarizing several investigations on this problem, Chester C. Bennett concluded (1, p 36):

There seems general agreement however that children with certain types of undesirable behavior habits or personality characteristics, and children struggling with deep emotional conflicts face more than average likelihood that they will find the art of reading difficult to master There seems equal agreement that a serious retardation in reading is quite apt to have detrimental effects upon the general development of the child's personality

He also commented:

Even on the assumption that one problem causes another, it does not necessarily follow that successful treatment of the primary problem will resolve the secondary.

Social adjustment is one of the factors in readiness for reading that the teacher can do something about. The teacher who attempts to rationalize her inability to teach a child on the basis of social maladjustment is sidestepping the issue. In her management of learning, the teacher has the responsibility of guiding pupils so that satisfactory personalities are achieved.

INTERESTS AND ATTITUDES

Some children are admitted to the first grade who have no genuine interest

perience. Clyde, with an IQ of 70, may "look" but may see very little as contrasted to Jerry with an IQ of 120 who may "see" many relationships such as the propeller on the plane and its function. Mary may have an IQ which approximates that of Jerry's but she may not "see" what Jerry "sees" because her interests are different. That which is tested by means of an acceptable intelligence test appears to be significantly related to success with reading activities

In a discussion of the relationship between intelligence and reading ability, Witty and Kopel generalized (75, p. 225):

> The relationship between intelligence and reading ability is positive, although low intelligence is infrequently a cause of poor reading. This paradox requires explanation Intelligence in behavior is reflected in the perception, assimilation, and organization of meanings Reading, a discriminative and understanding reaction to word symbols, is but one of the many specialized, abstract experiences and activities in life which necessitate for their comprehension and performance the functions or processes attributed above to intelligence-in-operation Intelligence, moreover, is a social function the criteria of an intelligent behavior in the individual are found in social values and activities. Hence, a society which extensively utilizes reading as a means of communication necessarily places a premium upon the acquisition of this ability and incorporates in it its concept of intelligence Reading is thus merely one individuation of intelligent behavior. Valid tests of reading, therefore, should show very close correspondence with adequate tests of intelligence.*

Numbered among the fairy tales about reading instruction is the often misquoted statement that a child "must" have a mental age of six and one half years in order to be ready for systematic instruction in reading. When this figure is used by educators grounded in statistics, they usually mean six and one half plus or minus a year or more. One of the most widely quoted—and misquoted—studies is that reported by Morphett and Wash-

burne in *The Elementary School Journal*, March, 1931 (48). Two studies were made: the first involved one hundred forty-one children for one semester; the second, made the following year, involved one hundred children for one year. For the first study, the Detroit First Grade Intelligence Test and the Stanford Revision of the Binet-Simon Scale were used to appraise mental maturity. Reading progress was measured by the number of steps each pupil had completed by February in the Winnetka Reading Program and an additional check on reading ability was made by means of a sight-word test. For the second study, the Detroit and Pintner-Cunningham tests were used to determine mental ages, and the Gray Standardized Oral Reading Check Test and the sight-word list were used to measure reading progress. Morphett and Washburne were primarily concerned with these questions: What relationship exists between mental age and reading achievement? What relationship exists between intelligence quotient and reading achievement? What is the optimum mental age for initiation into systematic instruction in reading?

Table I, summarized from two tables in their report, presents the data on the first study. It will be noted that very little, if any, progress was made by those children with mental ages below six years, but that the increase in percentage of successes rises sharply at the mental age of six and one half. Table II is a summary of their data on the second experiment. Here again, the percentage of children making "satisfactory" reading progress rose sharply at a mental age of about six and one half years

An analysis of the Morphett and Washburne report reveals the following pertinent information

1. The mental ages for the one hundred forty-one first-grade children had an approximate range from four and one half years to nine years. This means that the children would vary widely in their rates

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* From Witty and Kopel. *Reading and the Educative Process* Boston Ginn and Company, 1939.

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do not learn to read at six years of age while a few learn to read before they have attained a chronological age of six years. In spite of the fact that school policies are based on chronological age, this one factor is not a decisive one in readiness for reading.

Chronological age should be used only as a guide in assignment of children to classrooms for instruction. In general, there is no justification for assigning an eight- or nine-year-old child to a first-grade classroom because he can't read or is retarded in reading. When this is done, personality problems accumulate rapidly.

MENTAL MATURITY

Mental maturity appears to be a primary factor in readiness-for-reading ac-

tivities. Since reading is one of the most abstract aids to learning, it would appear reasonable to assume that mental alertness and maturity would be basic to the acquisition of facility in the use of the reading process. Children vary widely in their abilities to cope with abstract learning situations, hence, teachers at all grade levels can expect children to differ markedly in basic learning abilities.

An individual's nervous system is a primary factor in adjustment to life situations. The quantity and quality of the records in the nervous system resulting from contact with environment are determined by the sensitivity of an individual to the significance of that which is experienced. For example, a class may be taken on a trip to an airport, but each child will respond differently to the ex-

TABLE I.—Number of Children of Each Mental Age and Percentage Making Satisfactory Reading Progress and Sight-word Scores

Mental Age in Years and Months*	Number of Children†		Percentage Making Satisfactory Reading Progress‡		Number of Children§		Percentage Making Satisfactory Sight-word Scores	
	Detroit Test	Stanford-Binet Test	Detroit Test	Stanford-Binet Test	Detroit Test	Stanford-Binet Test	Detroit Test	Stanford-Binet Test
4–5 to 4–11	1	1			1	1		
5–0 to 5–5	12	1	0		12	1	0	
5–6 to 5–11	12	12	0		12	12	0	8
6–0 to 6–5	17	22	47	41	17	25	71	52
6–6 to 6–11	23	38	78	68	23	43	87	77
7–0 to 7–5	29	31	79	68	31	35	84	89
7–6 to 7–11	16	15	75		23	18	83	94
8–0 to 8–5	7	11		82	10	11	90	91
8–6 to 9–0	8	2			12	3	100	

* Intervals are half sigmas above and below the mean of the entire group as determined by the Detroit Test.

† Because the tests were given on different dates, some children who were given the Detroit Test were not given the Stanford-Binet test and *vice versa*.

‡ No percentages were figured for groups of less than ten children

§ The numbers of children whose sight-word progress is compared differ from the numbers whose reading progress is compared in Table II because one group of children not taught by the individual method was omitted from the reading-progress group.

TABLE II.—Number of Children of Each Mental Age and Percentage Making Satisfactory Sight-word Scores and Oral-reading Scores

Mental Age in Years and Months*	Number of Children		Percentage Making Satisfactory Progress	
	Sight-word Test	Oral-reading Test	Sight-word Test	Oral-reading Test
5–0 to 5–5	1	0		.
5–6 to 5–11	10	9		
6–0 to 6–5	25	24	64	58
6–6 to 6–11	23	23	87	83
7–0 to 7–5	23	23	87	91
7–6 to 7–11	12	12	83	92
8–0 to 8–5	5	5		.
8–6 to 9–0	1	1	.	

* Average of scores on Detroit Test and Pintner-Cunningham Test

degree upon his control over the relationships between language and facts. Reading is one means by which the child becomes oriented in this world of language and facts.

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Increasing attention is being given to associational factors in the reading process. The ability to perceive relationships is a highly potent factor in depth and accuracy of comprehension. To no small degree the extent to which an abstraction can be practically applied to the solution of a problem depends upon this ability of recognizing relationships. Fortunately, experiences of this nature may be incorporated in the developmental reading-readiness program. The teacher can do something about the development of this ability.

MEMORY SPAN

Memory span appears to be a significant factor in readiness for reading. Tests of both auditory-memory span and visual-memory span have been developed to appraise this factor. Children with low retention powers should be checked for possible mental immaturity. These are the pupils who cannot follow directions and who apparently "learn" today and forget tomorrow. Since reading involves, among other things, the carrying of a

PLANTING THE SCHOOL GARDEN

Bertha Smith

Yonkers, N.Y.

infants arrived when nests were scarce. To put it statistically, the coefficient of correlation between these two factors was unusually high. Obviously, a causal relationship could hardly be inferred. Actually, such relationships between correlated factors may or may not exist, and when they do exist, may be difficult to demonstrate. It is generally conceded, of course, that the factor of intelligence is one of many factors influencing reading efficiency. It may even be the principal determinant. Even so, it is well to bear in mind that with many individuals other factors may play a dominant role. For example, poor teaching, past or present, is probably a common cause of reading distress. With many pupils, personality difficulties, visual inefficiency, physical disability and a host of other factors may be responsible.

As a matter of fact, a representative group of pupils categorized as normal and above normal in intelligence may contain many who are deficient in reading. Some of these pupils are nearly as deficient in reading as others having low I.Q's. But most normalbright pupils who are deficient in reading are backward in the sense that they have failed to attain reading expectancy commensurate with their intelligence. The implications of this statement are clear. The problem of improving reading ability is an all-teacher problem.

Since reading is largely a "thinking" process, it follows that mental maturity is a primary factor in reading ability. A child of low mental ability is not likely to succeed with typical reading activities because he has very little to take to the printed page. On the other hand, some children with normal or superior intelligence do not succeed with reading activities. It does appear that mental maturity is essential in dealing with reading, but that mental maturity does not insure success

PERCEPTION OF RELATIONSHIPS

The abilities to recognize relationships between previous experiences and the problem at hand; to relate the abstract visual symbols to things which they represent; to relate abstractions; to select, evaluate, and organize ideas, and to ap-

ply new learning in a problem-solving situation are reflections of the higher mental processes required for successful participation in reading activities. A child characterized by mental immaturity, meager experiences, a limited vocabulary, or a low rate of association of ideas, is not likely to be "quick on the trigger" in perception of relationships; hence, he may be expected to exhibit some lack of readiness for reading.

Of all the learning aids, reading is the most abstract or remote from direct experience. Observing the behavior of feeding and caring for a pet rabbit is a direct means of learning about a rabbit Viewing a stereoscopic (third dimension) or flat picture of a rabbit is one way of learning about a rabbit, but more experience must be brought to either of these learning aids than would be required if direct observation were possible Means of locomotion, texture of fur, feeding habits, and the like are not so easily understood by the child who views a picture of a rabbit but who has never actually seen a rabbit. An oral discussion of a rabbit is still more remote from direct experience than is the viewing of a picture of one because speech sounds must be reconstructed by the listener. Reading about a rabbit is still more remote from direct experience and, therefore, is more abstract. The more remote the learning aid is from direct experience, the more abstract the learning becomes To reconstruct the facts behind printed symbols, the reader must possess considerable facility in association, a truly higher mental process

The development of meaning requires control over language-fact relationships That is, the learner must be able to perceive the relationship between the language used to refer to the fact or thing and the fact itself. By a careful induction of the pupil into reading activities, he is taught that words are not facts, but that they are used to represent, or stand for, things in his experience. In this sense, his comprehension will depend in no small

degree upon his control over the relationships between language and facts. Reading is one means by which the child becomes oriented in this world of language and facts.

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sequence of ideas in mind, retention, or remembrance, would appear to be a significant factor in comprehension.

A child with a short memory span has a hard row to hoe when it comes to reading Extreme mental retardation may preclude the possibility of understanding the consecutive discourse of most printed matter. The reading of words and phrases on store bills, signs, and the like may represent maximum achievement A short memory span may be reflected in an inability to master word recognition techniques because of an inability to associate ideas and to anticipate meaning for the purpose of using context clues As a result, the child may make reversal errors, meaningless substitution of words, wild guesses, and so on Self-help aids are often meaningless to a child with a short memory span because he forgets how they were evolved In general, it is a wise procedure to secure an index to the general mental maturity of a child with a short memory span

A desirable memory span apparently is essential to success with reading activities On the other hand, an adequate memory span does not insure reading success, because so many other factors are involved. A child with poor work habits, a lack of interest in reading, a poor attitude toward books may be easily distracted from reading Children otherwise ready for reading may be helped by an understanding teacher to eliminate distractions This requires activities within the learner's interest that are both purposeful and satisfying Whether a short memory span is a product of a defective nervous system or of a disinterest and poor attitudes, the teacher must differentiate the reading-readiness *or the reading program to take care of* the problem

BACKGROUND OF INFORMATION

Reading, or interpretation, requires a "taking to" the printed page, hence, a rich background of information is essential to comprehension. Experiential background, therefore, becomes one of the primary factors in reading readiness. Other things being equal, backgrounds can be developed. This means that the teacher can deal directly with this factor.

The relationship of one's information on a given topic to the ability to read about that topic can be easily demonstrated. Children who have never been on a train or who have never had even vicarious experiences with trains would have extreme difficulty in dealing with a story about a "Pullman," a "porter," an "engineer," a "conductor," and the like To have meaning, words must refer to something within the child's experience, otherwise, he will be taught to verbalize, using words about words and so on This factor of background of experience is a potent factor in reading ability at all age levels. There are few laymen who can "read" a technical article on vision or aerodynamics even though they can pronounce all the words. It would be ridiculous, therefore, to expect a beginner to read about some topic remote from his experience and involving words that he may not have heard or that he has never seen in print. Experience is a factor of paramount importance for all readers and especially for beginners.

Hilliard and Troxell studied "Informational Background as a Factor in Reading Readiness and Reading Progress" on an experimental basis. They concluded (33, p 269):

Other factors being equal, this study shows that children with rich backgrounds are more strongly equipped to attack the printed page than are pupils of meager backgrounds be-*cause of enriched meanings and thought* which the former bring to this task. Research has discovered that one of the greatest difficulties encountered in learning to read is lack of understanding of words and ideas Meanings grow through experiences and contacts Hence one large task of the kindergarten teacher is to enrich and broaden children's backgrounds

Hay-Edwards School A VISIT TO THE JANITOR *Springfield, Ill*

HOME BACKGROUND

Since the education of the child is not entirely a school affair, it follows that home background may be a factor in readiness for reading. Home influence is felt in a number of ways, including the quality and extent of experiences gained through travel and family discussions and the attainment of emotional and social adjustment. From research and experience, there appears to be substantial evidence of the positive relationship between home background and readiness for reading.

A potent factor in the child's development is the education and intelligence of the parents. To no small degree, the quality and the amount of reading done in the home is a reflection of the real education of the parents. Children reared in a rich reading environment undoubtedly are more likely to have better attitudes toward reading, more curiosity about books, a better background of children's literature and of facts, and, in general, more respect for books and other reading matter.

A child's facility in the use of English may be conditioned by parents who speak only a foreign language in the home. This problem arising directly from the home background must be solved in the classroom.

A number of observations regarding the emotional and social adjustment of the child may be made by the teacher when the child reports to school for the first time. In some instances the child is brought by the parents Sheltered children may cling to their parents and cry at the frightening scene of a number of other children enjoying their new classroom. This social weaning of the child requires tact with both parent and child Home background may have contributed to the development of a wholesome, outgoing personality or to a withdrawing child, too dependent upon his parents.

The interest the parents take in school activities may condition the child's readiness for reading. For one reason or another, some parents take very little interest in school activities or in the progress of their children At the other extreme are the parents who force their

children into school too soon and who follow their progress very closely in order to attain social prestige in the community Fortunately, most parents fall between these two extremes When too much home pressure is applied, tensions develop in the child and often he may be expected to achieve beyond his innate capacity Parents who "hear reading lessons" at home in the belief that they are helping the situation often do more harm than good It is a part of the teacher's job to insure normal parent interest in the school

Home background as a factor in readiness for reading is something the teacher can deal with directly. Gaps in readiness such as meager experiences and a lack of social adjustment must be bridged in the readiness program of the kindergarten-primary unit Through planned co-operation between the school and home, a few additional gains may be made.

LANGUAGE FACILITY

Facility in the use of oral language appears to be highly related to achievement in beginning-reading activities This includes vocabulary and language structure. In most reading-readiness tests, provision is made to appraise vocabulary It is also important to appraise the pupil's ability to put these words together in a form suitable for communication. Since most beginning-reading materials are written in short simple sentences, it would be necessary for a pupil to have acquired control over at least the structure of simple sentences. Since reading is only one step removed from the child's use of auditory symbols, it is reasonable to conclude that control over oral language is a prime prerequisite to reading.

Some children are admitted to the first grade with poverty-stricken language backgrounds First, there are those who cannot pronounce their words sufficiently well to be understood by their "new" contemporaries Speech defects and the use of "baby talk" may be obstacles to successful participation in reading and other language activities. Then there are those pupils who have a limited vocabulary because of limited experience or mental immaturity. Some of these children may be unable to express themselves in sentences, hence, they are not ready to read sentences.

In general, it appears that children learn to use nouns, verbs, adjectives, adverbs, prepositions, and pronouns in that order. At six years of age, the average child is estimated to have a vocabulary of about twenty-five hundred words From available evidence, it appears that girls at this age tend to use a slightly larger vocabulary than boys do. The average child begins to use complete sentences involving all parts of speech at the age of three or four years. At age six, the normal child uses most of the forms of sentence structure and his pronunciation is comprehensible Children evidencing delayed language development constitute a major instructional problem for the teacher

HEARING

In general, too little attention has been given to hearing as a factor in reading readiness While normal hearing does not insure success with language activities, a hearing impairment may be a handicap to the acquisition of language facility Hearing may be a factor in lack of expected reading achievement from two points of view First, the child's initial contact with language is through speech and a hearing impairment may retard speech development by incorrect perception of speech sounds and subsequent mispronunciation Second, a hearing impairment may limit the child's experiences This limitation of auditory experiences may tend to narrow background of information and may increase his communication hazards in the classroom An unsuspected hearing impairment may explain a lack of interest in oral language, as well as music activities and may account for apparent disobedience, lack of social adjustment, and

inability to follow directions. A lack of normal hearing may affect directly the reading process.

The general nature of the hearing impairment should be understood by the teacher. For example, the auditory nerve may be impaired, or irreparable damage may have occurred in the middle ear In either case, the impairment may not be corrected by medical treatment. Then, again, the impairment may be caused by an obstructed outer ear or an infected inner ear that will respond to medical treatment. In the first instance, permanent arrangements must be made for individual adjustment, while in the second instance temporary adjustments only will be required.

The type of hearing loss is another problem for the teacher to understand A loss of hearing in one ear only may be recognized by seating the child so that his good ear is toward the speaker. Then, too, the hearing may be impaired for all frequencies, or tones, in one case and not in another. A loss of hearing in the middle and higher frequencies may account for a child's mispronunciation of some words. When this is the case, intelligent guidance, not scolding, is the solution to the problem. The type of hearing loss does have educational significance.

Teachers in most areas nowadays have access to improved devices to test hearing. From the local, district, county, or state office of education, audiometers for group testing may be obtained While these group tests of hearing that use phonograph devices leave much to be desired, they may be used to screen out gross hearing impairments In most areas, an alert teacher, or nurse, or school doctor may obtain a pure-tone audiometer for individual testing The pure-tone audiometer is one of the most satisfactory means of appraising hearing efficiency.

Special provision should be made for deaf and deafened children. Those with less severe hearing impairments can be cared for in regular classrooms, but the condition must be recognized in the seating arrangement and in the mode of instruction.

AUDITORY DISCRIMINATION

The ability to hear likenesses and differences among the "sounds" of words appears to be a factor in readiness for reading Some children may say "nick" for "neck" because they do not hear the difference Others may run their words together because they have not heard them as separate words. In view of this, incorrect auditory associations may contribute to unanalyzed difficulties in initial reading situations The authors of reading-readiness tests appraise this ability either directly or incidentally. Auditory discrimination is an ability to be developed during the prereading period as well as during reading instruction.

Unless a hearing impairment exists, the development of auditory discrimination, or word sound awareness, may be made a part of the normal instruction. When a hearing impairment does exist, the teacher has the problem of obtaining medical treatment for the child and possibly of adjusting the instruction in terms of the type of defect. There should be no delay in the correction of physical defects and the advice of the health specialist should be followed in planning the child's program. In any event, then, the problem of auditory discrimination is one for the school.

Accurate auditory discrimination contributes to good speech habits and to an awareness of speech sounds which are essential to phonetic insight. In view of this, it is clear that inaccurate auditory discrimination may contribute to a lack of reading readiness or to a reading deficiency.

VISUAL EFFICIENCY

Since reading is a process of reconstructing the facts behind "visual" symbols, it follows that the child must be able to see in order to respond to

tively, how to walk correctly, and so on. In like manner, some individuals must be taught how to see efficiently. Teachers should be informed concerning this new slant on vision so that they can cooperate with vision specialists to the best interests of the child.

In school, visual efficiency has three important aspects. First, the child must be able to see clearly at all working distances. He must be able to see clearly the visual symbols on the blackboard, on bulletin boards and charts, and on the printed pages of books. It will be noted that these materials are viewed at distances ranging from nine to fourteen inches up to about twenty feet. Since a child may be able to see clearly at one distance and not at another, this phase of visual efficiency must be appraised at all working distances.

Second, the child must be able to see singly at all working distances. If he uses only one eye, he is not likely to ex-

EACH AT HIS OWN TASK

Bertha Smith   *Yonkers, N.Y.*

visual symbols Children with normal visual functions may not learn to read, but some individuals may be handicapped in their reading activities by inefficient vision If visual efficiency is a factor in readiness for reading, then the teacher should be aware of its educational implications

Within the last decade, vision specialists have shifted the emphasis from "eyes" to "visual skills" While they fully recognize the necessity of healthy eye structure, modern vision specialists are now giving much needed attention to the study of how visual skills are developed and how to improve inefficient visual functions This new emphasis has paved the way for mutually harmonious working relationships among vision specialists, psychologists, and educators, because visual skills are "learned" In a very real sense, many individuals need to be taught to see skillfully. Most people have to be taught how to speak effec-

reading errors. Fifth, the use of purposeful reading situations reduces the tendency to make reversal errors. In the light of recent researches, there is less tendency to be concerned over a reversal tendency as an isolated factor. By various means of appraising readiness for reading, the teacher is able to identify the possible cause of the difficulty in most instances.

A child does not have to be able to recognize words in order to be tested for this ability to make visual discriminations. Geometric forms and words are usually used for appraising visual discrimination. Some tests are arranged so that the child's ability to discriminate in terms of likenesses and differences of the total configuration or general form of the word is appraised. For example, on one line four words may be *here* and one word *go*. The pupil is requested to point to the word that is not like the others. Items also are included to test the child's ability to note details as a basis for discrimination. For example, four words may be *horse* and the fifth may be *house*. Since many children do not have adequate left-to-right orientation, reversible words such as *saw* and *was* and *on* and *no* are used as test items for the appraisal of this type of orientation. While the pupil may not be able to "read" these words, he can be tested in a satisfactory manner.

The ability to make accurate visual discrimination does not insure success with reading activities. Some children may be good observers of word forms and still be unprepared for successful participation in reading activities For example, the child may not have a sufficient background of information to grasp the significance of the things for which the words stand, or he may be unable to perceive relationships between facts. Within certain limits, the ability to make visual discriminations among word forms can be developed In general, therefore, visual discrimination is not something for which the teacher just waits.

In a recent magazine article, Frank T. Wilson emphasized visual perception as a factor in reading ability. His view is stated as follows (73, p. 613):

The basic symbols for printed material are letters, the arrangements of which present certain ideas Successful reading of ideas depends on perceiving accurately the letters that form each word Probably this perception is more or less that of seeing a pattern as a whole. Certainly, for good reading it is not seeing letters in sequence, or individually Nevertheless, accurate perception is fundamental and depends on perceiving every important letter in words, although the completeness of such perception probably varies considerably, depending on the care taken in reading For example, in rapid easy reading, perception of the letters in the stimulus words is probably less clear than in slow reading of difficult material.

COLOR DISCRIMINATION

The ability to discriminate between colors is of concern to teachers because it enters into activities related to reading. About four or five per cent of the boys are color-blind and about one per cent or less of the girls are so handicapped This color-blindness may be total, but it is more likely to be partial. The child who is totally color-blind sees the world done up in shades of gray. On the other hand, the partially color-blind may see black, white, gray, blue, and yellow, but be unable to discriminate between red and green. The incidence of green-blindness exceeds the incidence of red-blindness.

It should be clear to the teacher that children who are totally or partially color-blind will be frustrated in those situations requiring color discrimination. There is no excuse for failure to screen out those who should be checked more carefully. In every classroom the materials for checking the child's ability to discriminate between colors are available. A crude test can be made and used as a game. For example, the teacher can cut out two sets of colored papers and have the children put them together in pairs.

perience double vision If he uses both eyes, he may see double when viewing the printed page in his book and singly when viewing the blackboard, or *vice versa.* Then, again, he may see double or tend to see double at all working distances It is important that this phase of visual efficiency be appraised

Third, the child must be able to see singly and clearly for periods of sustained attention. This means that the functions of seeing clearly and of seeing singly must be well integrated, or in phase, in order to permit the child to maintain his seeing activities at a high level of efficiency In some children, this equilibrium between the two functions is disturbed by a toxic condition In other cases, the equilibrium is disturbed in such a way that more nerve impulse must be sent to one function than to the other in order to maintain two-eyed vision When close harmony between the functions of seeing clearly and of seeing singly is disturbed, the child then must learn to "limp" along with inefficient visual skills When this occurs he sometimes becomes conscious of his eyes or he shuns reading activities that require efficient seeing skills So it is not enough to be able to see clearly and singly, these two functions must be used in the right relationship to each other in order to maintain efficient visual skills for prolonged periods of application

A modern vision specialist may spend at least an hour to take about forty-five findings for his "visual analysis" This is a far cry from the attention given to the problem by the eye specialist of a generation ago who tested only clearness of vision at twenty feet and prescribed a pair of glasses An up-to-date vision specialist can do so much to prevent the development of inefficient skills if he is permitted to make a visual analysis at least once each year If his analysis indicates faulty visual skills, he may prescribe glasses for reading books and none for distance seeing, or he may prescribe glasses for all seeing activities, or he may

prescribe remedial visual re-education differentiated in terms of the visual analysis findings Increasing numbers of professional men and women are getting the professional training and the office equipment to make visual analyses rather than mere "eye" examinations.

VISUAL DISCRIMINATION

The ability to be a good observer of the likenesses and differences among word forms appears to be an important factor in reading and spelling situations. Thus ability to make visual discrimination is sometimes called visual perception. All reading-readiness test batteries contain at least one test section with some such label as "word matching," "perception," "similarities," "matching," "cross out," "visual discrimination," "word discrimination," "noting similarities and differences in word pairs," and "discrimination of geometric forms." In short, the ability to make visual discriminations among word forms generally is conceded to be basic to readiness for initial instruction in reading

Until recently there has been undue concern over reversal tendencies exhibited by six-year-olds. A number of studies have thrown considerable light on this problem Helen P Davidson (15) found that most kindergarten children and a substantial percentage of first-grade pupils tend to evidence reversal tendencies on letters and words. She concluded that "a mental age of at least seven and one half years was necessary to avoid making the *d-b, q-p,* and *b-d* errors" In general, these conclusions have been reached First, a substantial percentage of first-grade children tend to make reversal errors. Second, the reversal tendency appears to be somewhat independent of intelligence. Third, pupils tending to make a number of reversal errors upon admission to the first grade have less chance to succeed with immediate reading activities than those who are oriented in this respect. Fourth, reversal errors constitute only a small proportion of

reading errors. Fifth, the use of purposeful reading situations reduces the tendency to make reversal errors. In the light of recent researches, there is less tendency to be concerned over a reversal tendency as an isolated factor. By various means of appraising readiness for reading, the teacher is able to identify the possible cause of the difficulty in most instances.

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PHYSICALLY READY FOR SCHOOL

Allegra Inglerght   *South Bend, Ind.*

For one reason or another, some children may not be able to name all the colors. After they have demonstrated their ability to match colors, it is an easy matter to have them named. To double-check on red-green discrimination, the teacher can present the child with three strips of red and one of green (*or vice versa*), asking him to pick out the one that is more than one way for the other three. Where there learn," or know, the chil tempting to teach him.

First, the teacher should le or not the child is totally color-blind. Second, the tea test the child's ability to ide

the primary colors. If the child is color-blind, he should be guided around activities involving color discrimination to avoid frustration. It would, of course, be the h f folly to attempt to teach a cole dividual to discriminate bet l g Not only would tha w eacher time, bu disturb-ing be intro-mere in-usually be of class-ex-of th mode!

not be a serious handicap in worthwhile reading activities.

GENERAL HEALTH STATUS

Whether a child is learning to rollerskate, to meet people, or to read, the general status of a child's health is a significant factor. Health is conditioned by rest, nutritional status, glandular balance, resistance to infections, freedom from toxins, and the like. Health often dictates the individual's whole outlook on life. The undernourished may fatigue easily; a lack of rest may contribute to irritability; a glandular imbalance may make a child high strung or lethargic; and inability to resist infections contributes to the "all gone" feeling. Not all good physical specimens learn to read

easily, but a low general health status may interfere with learning.

MOTOR CONTROL

There probably is some degree of relationship between motor control and readiness for reading. In fact, oculomotor control and motor speed and steadiness are included in the Monroe Reading Aptitude Tests. Reading activities usually require precise oculomotor control for making rapid and accurate fixations, fairly accurate eye-hand control for pencil and paper activities, and some general motor control for the turning of pages and the careful handling of books. Defects in motor control range all the way from minor motor inco-ordinations to paralysis. Extreme deficiencies

"I Prefer to Use My Left Hand." *Newark, N.J.*

in motor control should be analyzed by a neurologist and a clinical psychologist, for a damaged nervous system may contribute to language difficulties Unfortunately, the development of motor control often is given too little attention after the child leaves the kindergarten

NEUROLOGICAL STATUS

In rare cases the integrity of the nervous system must be appraised by specialists in neurology and psychology in order to throw some light on a lack of readiness for reading Occasionally a child is admitted to the reading clinic who evidences an inability to associate meaning with printed symbols In some instances, this condition may be further compli-

VISUAL FIELDS A DEVICE FOR DIFFERENTIATING BETWEEN PEDAGOGICAL AND NON-PEDAGOGICAL READING PROBLEMS
Visual Science Research Division   Penn State College

cated by speech and writing disorders For example, Martin at age nine was a nonreader and a stutterer. In spite of the fact that he had normal general intelligence, he had unusual difficulty in associating the printed symbol with the thing it represented. This case required the expert services of a neurologist and a clinical psychologist for analysis. Special procedures were used and progress in reading was extremely slow. On the other hand, Fred had high normal general intelligence and a specific reading disability. His speech production and ability in oral discussion were superior. His functional visual problem did not appear to be a significant factor in his reading disability. Here, again, special procedures were used and progress was very slow Teachers should be on the look-out for these special cases. Usually they must receive individual attention in a reading clinic that has access to the services of a neurologist.

Generally speaking, there are two schools of thought regarding unusual language disorders. One group of neurologists tend to emphasize the organic aspects of the disorder by tracing the faulty behavior to a lesion, or injury, of an area of the brain. The other group belong to the dynamic, or functional, school of thought Disorders of "symbolic formulation or expression" are discussed in terms of function. More recently neurologists specializing in this area of language disorders are tending to emphasize the psychological aspects of the problem.

The term "alexia" is used to designate a cerebral disorder characterized by inability to read. "Word blindness" is another term used in this connection Fortunately, cases of alexia are rare. Wholesale use of the terms alexia or word blindness is without justification. Neither of these terms should be used until the case has been diagnosed by competent specialists Labeling the condition, of course, does not solve the problem, for special instructional procedures

must be used. It is too easy to excuse poor teaching by labeling a child as word-blind.

Sometimes these cases of specific reading disability are passed off as "dumb." This again is avoiding the issue. Reading-clinic services have been sufficiently well developed over the country so that there is little reason to permit a reading disability to go unanalyzed.

In connection with neurological status as a factor in reading readiness, mention should be made of laterality or dominance. It is well known that some individuals prefer to use the left hand for writing activities and the like and the left eye for sighting. Furthermore, there is evidence to the effect that one hemisphere of the brain dominates in the control over hand preference and language. Studies of hand, eye, and foot preference have led neurologists to advance ideas about the relationship between a confusion of dominance, or a clearly established dominance, and certain types of speech disorders and reading disabilities. A discussion of the technical aspects of laterality and language disabilities cannot be justified at this point. So far as this problem is concerned, the teacher should be aware of the possible educational implications of a change of handedness and permit each child to use his preferred hand for all unimanual, or one-handed, activities such as writing.

SEX DIFFERENCES

It is well known that boys comprise from sixty to eighty per cent of the retarded reader population. In fact, very few girls are to be found in reading clinics. Sex differences in readiness for reading would appear to merit consideration.

In general, sex differences are found in the language development of preschool children and first-grade entrants. Girls excel boys in vocabulary and pronunciation ability and during the primary-school years appear to exhibit more interest in secret language. In the elementary school, girls excel boys in written composition, spelling, and speed and quality of handwriting. On the average, about twice as many boys suffer from speech defects as do girls. Stuttering occurs more frequently among boys than among girls. Girls, however, are more likely to lisp than boys are. The types of questions preschool girls ask differ somewhat from the questions of boys. Girls seem to be more interested in names of places and things while boys want to know "what" and "why." For several reasons boys are more prone to gang behavior than girls are.

Other observations regarding sex differences and reading may be summarized as follows. First, there is some evidence to the effect that girls are promoted on lower standards of achievement than boys are. Second, girls use reading activities for recreation more often than boys do. Third, there is a need for more reading materials to challenge the interests of boys. Sex differences in readiness for reading may be overemphasized After all, there is considerable overlap between sexes. Girls as well as boys may be characterized by speech defects and delayed language development.

Summary

Reading is a very complex process, requiring the ability to deal with abstractions. Because of the highly complex nature of the reading process, no one factor stands out in bold relief. Factors in reading readiness are inextricably interrelated. Furthermore, each factor carries a different weight in predicting readiness for reading. The teacher deals with the total organism of a growing child.

Factors discussed herein are highly sig̲ ̲at all levels and in all areas of ̲. Each teacher is a first-hand ̲ systematic sequences of readi- ̲ each teacher is responsible for ̲nce of language development ̲; important to keep

factors in mind when developing a differentiated reading-readiness program. These factors are the ingredients of a compound called "reading readiness." When a given element is missing or lacking in potency, the other elements take on different characteristics. For example, mental immaturity or a sensory

defect may limit a child's possibilities of profiting from either direct or vicarious experience. Since not all children profit equally from a given quality and quantity of teaching, learning is differentiated. The problem then becomes one of planning instruction, differentiated in terms of capabilities, interests, and needs

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The chief purpose of the school is to develop on the part of its pupils the capacity for effective living in a democratic, complex, and highly dynamic society, a society in an age of power. Social and personal integration is now conceived to be the end of the educative process. Stated simply, this means the developing of individuals capable of effective participation in our society with benefit to both the individual and the social order.

F. G. MACOMBER (34, p 146)

Mental Health

The inner adjustment of the individual contributes to his mental health which is one of the primary considerations in a modern school. For this reason, the teacher must have some understanding of the basic principles and procedures of mental hygiene. In addition to concern for inner adjustment, attention must be given to the need for conformity to social demands. This requires an understanding of the basic principles and procedures of character education. To care for this double-barreled instructional problem, consideration must be given to the adjustment of the environment to meet the needs of the child and to the attainment of a reasonable degree of social conformity.

Signs of Maturity. An individual who has achieved an appropriate degree of emotional and social maturity may be described in a number of ways. First, he has developed habits which permit him to work independently. Second, he assumes the responsibility for his own behavior. Third, he has broad interests that make life interesting and challenging. Fourth, his relationships with others are stimulating and satisfying. Fifth, he has something to contribute to a group activity. Sixth, he has acquired socially acceptable techniques for contributing to group activities. Seventh, he is a good listener. Eighth, he has learned to co-operate with the group in spirit and act. Ninth, he has developed well-grounded habits of courtesy. Tenth, he has achieved intelligent and reasoned attitudes toward authority. And lastly, he is loyal to his group. These and kindred items of behavior make for wholesome, well-adjusted child.

Lack of social and emotional maturity or outright maladjustment is characterized by a number of symptoms, such as dislike of or apparent disinterest in reading activities, narrow interests, inability to concentrate, daydreaming, short attention span, restlessness and fidgety behavior, unpopularity with the group, emotional outbursts, temper tantrums, extreme timidity and shyness, fear complexes, a tendency to annoy other pupils, insistence on having his own way, destructiveness, lying, cheating, discourtesy, unwillingness to share possessions, and so on. Some children will present a combination of these symptoms. Since these are symptoms, the teacher must be professionally prepared to observe

them and to make use of her observations in order to get at the cause or causes of the behavior.

Individual Differences Teachers need constantly to remind themselves that *individual differences are as marked in emotional adjustment and social behavior as they are in learning rates and academic achievement* No child is all good or all bad, instead social behavior is likely to be of the salt-and-pepper variety The teacher, then, should be challenged by the wide range and the complexity of individual differences in social adjustment. Children must have guidance if they are to learn how to live together

In making his social adjustments, the child proceeds from the family group to the neighborhood group to the school group. His innate capacities and tendencies, then, are modified and directed by those in these social groups. It becomes apparent that the home and the school should actively co-operate in guiding the child's social development.

Results of Regimentation. Social adjustment ranks high among the major objectives of modern education In the regimented schools of yesteryear, many of the practices influenced the development of social behavior in a negative direction. When the same pedagogical prescription is given to all children just because they happen to have the same grade classification, frustration operates two ways. First, those children who lack the ability to deal with the prescription are thwarted in their attempts to learn. Normal reactions to this type of abnormal "learning" situation include rebellion, withdrawal, tensions, hostility, and defiance. The teacher, then, must take pride in her ability as a disciplinarian. Second, those children who are ready for higher level learning activities are not challenged, and consequently their zest for exploration and adventure may wane. Normal reactions to this type of abnormal "learning" situation include low level of interest, reduced initiative,

withdrawal, and the like. The teacher may be confronted with problems of discipline and of keeping pupils busy. In any event, continued frustration is not conducive to the development of a wholesome and well-integrated personality. Regimented instruction—that is, treating all pupils alike—is being superseded by differentiated instruction that recognizes individual and group needs, interests, capacities, abilities, and adjustments

The emotional development of the individual continues from birth to death. While much of the basic training has been completed before the child enters primary school, the school continues to develop appreciations, modify attitudes, extend interests, and intellectualize responses. How much each child achieves in desirable emotional development depends to no small degree upon the recognition given by the teacher to individual differences and needs in this respect and upon the extent to which a rich emotional environment is provided

Personality Development. The teacher is concerned not only with the development of desirable attitudes toward reading and emotional maturity in reading situations, but also with general personality development. How to live together in the classroom and on the playground is just as important as an emotional readiness for reading. In fact, the development of emotional readiness for reading is only a part of the larger instructional job To do this instructional job, emotional *education and some emotional re-education* are required

This problem of social and emotional adjustment has to do largely with the *affective* life of the individual. Whether one gets on well with others or is emotionally ready for reading is both directly and indirectly related to the educative process. In his committee report on *Emotion and the Educative Process,* Daniel A. Prescott evaluated "the importance for education of the three major aspects of affective life: feelings, emotions, and

emotional attitudes" (41, p. 10). It is this area of learning that is important to teachers in modern schools because personality is a blending of feelings, emotions, and attitudes.

The following discussion is centered around these questions: What are the goals of education so far as emotional and social adjustment are concerned? In what ways does social and emotional adjustment contribute to readiness for reading? What is the relationship between personality and achievement in reading? How can opportunities be provided to satisfy the basic emotional needs of the individual? What school practices facilitate the development of emotional and social adjustment? What school practices contribute to maladjustment? What are typical reactions of normal individuals to conflicts?

MENTAL HEALTH AND READINESS FOR READING

Social and emotional adjustment loom large among the many interrelated factors in readiness for reading. It is generally assumed that emotional instability and social maladjustment may be a "cause" of a reading deficiency as well as a "result" of a reading handicap Furthermore, it is assumed that the "prevention" of reading difficulties, social inadequacies, and emotional aberrations is a worthy goal of education. Hence, a reading-readiness program should embrace some clearly stated notions and practices regarding the development of these important phases of readiness for reading.

Social Adjustment. Social adjustment is a significant problem for the primary teacher. In one study (14, p. 21), the investigators found that "about one fourth of the first-grade children are socially unadjusted." In another study Ladd concluded (32, p. 83):

> Through the classroom methods of group testing now available, no marked relationships have been found between reading ability and gross scores on socio-economic status of

the home, play interests, and general personality adjustment respectively . . A slight and not reliable tendency has appeared for good reading achievement to be associated with such desirable traits or conditions as better socio-economic status, absence of foreign language in the home, and better personality adjustment.

A number of studies have been made of the relationship between social and emotional adjustment and reading achievement The findings are not necessarily conflicting.

It has been the writer's experience that there is no categorical answer to the question. In some instances, children have emotional and personality problems that interfere with reading achievement. In other instances, frustration in reading situations has clearly produced the personality problem. The latter holds true in the majority of cases.

Approaches to Study of Behavior. One of the first jobs of the teacher is to learn something about the emotional and social liabilities and assets of her pupils A number of approaches may be made to this job First, through informal discussions and the systematic observation of behavior, the teacher may obtain first-hand information. Observations may be made regarding Jim's speech defect. Jim stutters only when embarrassed, so that he may not be required to recite poetry or to read in an emotionally tense situation. Susan is shy and retiring. She must be given opportunities to contribute to class undertakings. Billy is obstreperous and has no respect for authority. He must be led to sense his responsibility to the group. Duane is flighty and doesn't stick with a task. Steps must be taken to develop perseverance. Sally is not accepted by the group because she is selfish. She must be taught to share responsibilities. A group of children present a multiplicity of problems to an aware er. A teacher needs to develop c observation in order to pr for a year of adventure ir group of children.

ABSORBED IN A GOOD STORY

Public Schools   Columbia, S C

Entering school is one of the many important adjustments a child makes When he has not had kindergarten experiences, his entrance to the first grade will require many more social and emotional adjustments Frequently, it is not wise to add reading to his adjustment problems. Stimulation from too many directions may produce only frustration and bewilderment

A second approach may be made through parent interviews. Gretchen's mother may be a "bridge-hound" who expects the maid to attend to all the problems of her children. Charlie's mother may have some grievance against the school that can be "talked out" wit a patient teacher John may come fr a recently broken home where tensi between parents are now reflected in behavior Laura may not be ge

enough to eat. The twins, Alice and Bobby, come to school "all dragged out" because the parents keep them up late at night for shows, shopping, and so on A much better understanding of adjustment problems may be obtained by knowing the parents, whether the school is in a silk-stocking district or down by the vinegar works

A third approach to the study of behavior problems may be made through the use of interest inventories, social adjustment inventories, general personality inventories, and check lists Worth while though these are, the teacher should make maximum use of informal-observation techniques. One of the chief values of standardized procedures is the insight the teacher gains regarding crucial items to be observed.

Emotional stability and adequate social adjustment do not insure success with reading activities. On the other hand, emotional instability and inability to follow directions or to work with others may seriously interfere with success in reading activities. The child who cannot concentrate, who is defiant and hostile, or who is fearful and withdrawing is likely to have difficulty in adjusting to reading situations. Faulty practices may aggravate this condition and cause the problem or problems to persist.

Guidance. Guidance in the promotion of social and emotional adjustment must come through several sources Until entrance to school, the child is what he is because of his contacts in the home and the neighborhood. These contacts he keeps after entering school and, therefore, they merit consideration. The kind of preschool and ~~garten~~ experiences he has had ~~~~gnificantly his
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to provide for individual differences in adjustment. Since the fact remains that children are not alike, they must be treated as different personalities. Herein lies the crux of the problem.

Consideration of Needs. Emotional readiness for reading is a significant factor in successful achievement at all age or grade levels. One of the first considerations is that the child must have a compelling purpose for reading. A personal need must be satisfied through the reading activity. This consideration has several important implications:

1. The child must have needs that can be satisfied through reading instruction can be initiated successfully. Parents and teachers of six-year-olds might well ask themselves this question: "To what use can this child put his reading in his everyday activities?" While no significant investigation has been reported on this important problem, it is the writer's observation that very few first-grade pupils have real needs to be satisfied through reading. Hence, the teaching of reading is an up-hill job in many first-grade classrooms.

2. An awareness of the significance of printed symbols must be developed before initiating instruction in reading. In short, the presentation of a preprimer to every child upon admission to the first grade is likely to produce bewilderment and frustration. So far as the child is concerned, he has been living in a world of oral language. If he has not been oriented to these silent visual symbols, or "funny looking" marks, in the preprimer, he is unlikely to get the point of reading.

3. Reading must be used as a means of answering questions or providing a worth-while leisure-time activity for the child at the moment. Immediate needs must be satisfied. Among other things, this means that the child should have questions to be answered by reading. In too many situations, the teacher is the only one to have questions answered. As

one child put it, "If we do all the work, why should the teacher be paid for it?"

4. If the child is to use reading as a means of satisfying certain compelling purposes, then the material must be readable for him. For example, it is no "fun" for anyone to read material in which more than one out of twenty running words cannot be recognized. One of the very first considerations in developing emotional readiness for reading is the child's motive for reading. When the pupil is not compelled by an inner desire, learning is reduced to a very low ebb.

Need for Satisfaction. A second very real consideration in emotional readiness for reading is this. The child's skills and abilities in reading must keep pace with his mental and emotional development. In other words, he must be able to satisfy reading needs when they arise. When a child of normal or superior intelligence is not able to read at eight or nine years of age, he finds himself subjected to oppressive social pressure, because his educational progress is blocked. Premature instruction is bad business; delayed instruction is equally bad. For example, James, a nine-year-old boy, was brought to the Reading Clinic because he could not read. After an analysis of his problem had revealed his needs and the fact that he could be expected to make rapid progress, he was told so. When given this encouraging information, he gave the examiner's hand an extra-hard squeeze because words could not express his feelings and emotion. Reading is one of the most important aids to learning in schools. Too much is at stake for the school to overlook the fact that skills and abilities in reading must keep pace with mental and emotional development.

Avoidance of Frustration. Continued frustration is always a possibility to be avoided in reading situations. A child may cry or use other means of giving vent to his feelings when he is denied some small privilege. This occasional outburst of emotion, of course, may do little harm to his emotional status. On the other

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Guidance. Guidance in the promotion of social and emotional adjustment must come through several sources. Until entrance to school, the child is what he is because of his contacts in the home and the neighborhood. These contacts he keeps after entering school and, therefore, they merit consideration. The kind of preschool and kindergarten experiences he has had modify significantly his behavior upon admission to the first grade. The primary-school period, then, becomes a crucial one in his emotional and social development. If the teacher assumes that all children must be treated alike, the child's adjustment problems may be increased. It, therefore, behooves the teacher to differentiate her guidance

be satisfied through reading and still not have the other qualifications. To insure a highly satisfactory initial contact with reading, both the needs to be satisfied and the mental, emotional, and physical qualifications must be present.

In discussing the subject of when is a child old enough to read, Ruth Streitz makes these significant statements (50, pp 8-9):

> The child's emotional reactions must not be overlooked. How many children are allowed to build up aversions to reading! These aversions sometimes result from forcing the child to learn to read when he sees no use or need for reading. Frequently these aversions result from trying to read material that is too difficult. Sometimes prolonged absences from school contribute to his feeling of inadequacy upon his return Undue pressure on the part of the parent or the teacher, or actual physical disabilities—such as poor vision or defective hearing—build up a dislike for the reading activity Emotional blocking also results even among bright children when it is induced by fear of ridicule or fear of disappointing someone whom the child admires. The difficulty of the material can be adjusted; special help can be given the child who has been absent, glasses can be

secured for those with defective vision, and various auditory helps provided for the hard of hearing

The real difficulty comes in meeting the child whose attitude toward learning to read is charged with emotion. Such a child is unable to overcome the handicap without extreme patience and tact. The establishment of "rapport" between the child and the adult who is to help him is of prime importance. All teachers, regardless of willingness, do not possess the skill necessary to handle these cases which, fortunately, are not found in large numbers but do exist.

Making sure that the child's first reading experiences are bound up in situations in which he sees the use and meaning of reading is of the utmost importance in establishing right attitudes. The building up of confidence and desirable attitudes toward reading activities is an essential part of the reading program which has been characterized as "readiness" by a number of writers.

The relationships between feeling and readiness for learning have several implications for teachers. First, continued frustration—such as forcing a child to "read" a first reader when he has only preprimer level reading ability—produces feelings of unpleasantness which

A MEETING OF THE BOOK CLUB   *Madison, Wis.*

R. W. Bardwell

hand, most children are aware of the importance of reading in the school situation and continued frustration may lead to serious emotional and social maladjustments Some pupils look forward to the time when a work permit will relieve them of their school agonies. Others who are less fortunate may be held in a frustrating situation by parent and teacher connivance The debilitating effect of continued frustration upon the personality of the individual is well known by psychologists and psychiatrists

The effect of frustration in reading situations has been described by Mandel Sherman (19, p 131)

> An individual who meets a frustrating situation but who also knows that he may avoid that situation in the future may not be affected by his failures In the case of a child or an adult with a reading disability, the situation is quite different The individual realizes that he will not be allowed to abandon the task of learning to read well, and he frequently looks into the future with anxiety and apprehension Many children become exceedingly defensive not only toward reading but also toward academic training in general One child of thirteen, referred by his teacher for clinical study, had become resentful toward any person connected with school work He insisted that he was not interested in reading and pointed to the fact that many successful persons have never had more than a few grades of formal education His antagonism was so intense that it was almost impossible to administer the diagnostic tests When remedial work was introduced, progress was exceedingly slow, principally because of his negativistic responses It was only after a long period of psychiatric therapy that he was able to reorient his attitudes and to respond to the remedial situation without emotional disturbance

Regardless of the cause of the emotional problem, steps should be taken to correct it A differentiated approach must be made to the problem In Billy's case it was necessary to apply certain principles of mental hygiene in order to prepare him for initial reading instruction. In Vincent's case the attitude of

withdrawal was overcome as he proved to himself that he could learn to enjoy reading activities. In Doris's case a double-barreled approach was required to develop sound mental health and reading ability. The possible cause must be taken into consideration and constructive help must be given. All learning must have emotional tone, but debilitating emotions should not enter into the learning situation.

FEELINGS

Psychologists have learned that feeling and learning are highly related. Learning appears to be in direct proportion to an individual's feeling status. Feelings range from pleasantness to unpleasantness, depending, in part, upon whether behavior is frustrated or facilitated. Pleasantness is a psychological experience that directly influences learning.

The individual is constantly reacting to ever-changing stimuli. These reactions are believed to be always in the direction of attaining stability. Feelings of pleasantness arise when the individual has achieved satisfaction which may come from rest or from an opportunity for action when the individual is ready to act. Fatigue or prolonged inaction may contribute to feelings of unpleasantness.

Satisfaction and Readiness. It is highly important that the child's first contact with reading situations should be a pleasant and highly satisfactory one. Emotional problems are created when the child is prematurely forced into reading situations for which he is not qualified When a drill, or learning-to-read, approach is used, the pupil is likely to evaluate reading as very distasteful. When the reading-to-learn approach is used, needs are satisfied and the child is more likely to see the point in reading. Too often the drill approach is used because many children are not ready for systematic instruction in reading upon admission to the first grade. On the other hand, a child may have needs that might

tions. What might produce a tonic reaction in one individual might cause a crisis for another. The meaning the situation has for the individual dictates to no small degree the intensity of the emotional reaction.

Prescott concludes his discussion of mild emotion with this recommendation (41, p. 21):

> Educators may find justification here for making vivid experiences an integral part of many phases of the educative process Certainly the schools need not remain the drab places which they too frequently are Children may enjoy safely the excitement of participating in a wide range of moderate emotional experiences without being seriously upset, though a word of caution based on individual differences in temperament is doubtless in order.

Strong Emotion. Strong emotion may be of the pleasant or unpleasant variety. It may strongly motivate the individual to action or motivation may be reduced to the point of depression. In any event, the reorganization of the bodily processes is extensive and highly intensified. This physiological reaction lasts longer than it does in mild emotion. When strong emotion is experienced too frequently or over too long a period of time, it becomes a detriment to health.

Strong emotions may result from a number of situations. When an individual is startled or must react immediately to an emergency, a thalamic, or "unthinking," reaction may be accompanied by bodily changes that characterize strong emotion. Intensity of emotions may come from an anticipated danger or from continued frustration, or from thwarting. Mild emotions may be built up in anticipation of a story or of dramatizing it, but strong emotions may arise if the child is frustrated in his attempts to achieve his goal. For example, a child may not build up strong emotions if he passively sits in a reading class where he cannot achieve, but strong emotions may characterize his behavior if he is driven daily by parent and teacher threats and other unsavory devices. These emotions may be intensified to the point that the child is incapacitated. Strong emotions may be damaging to both mental and physical health

Prescott concludes his discussion of strong emotion with this warning to educators (41, p. 29):

> The implication for education is apparent. The schools dare not meet with unconcern the cases of frequent and upsetting strong emotions which are found among children They must be concerned with righting the causes of these emotions if that is possible, they must be careful to adjust the routine and work of children suffering such upsets, and above all must be watchful that they do not contain the exciting causes of such emotions in their own inflexible or unreasonable program or treatment of children Always, there is the danger that the critical point of tolerance for strong emotion will be passed in the children concerned and that illness will ensue

Disintegrative Emotions. When strong emotions are called into play in too many situations and for too long a period, physical and mental functions are likely to break down. This calls for hospitalization. It is important for the educator to be aware of the levels of emotion, but this third is a problem in pathology and, therefore, need not be discussed in detail here.

ATTITUDES

Children live by their attitudes. Fortunately, the elementary-school teacher has the child at a time when many of his attitudes are being formed. Attitudes are based on experience and constitute a state of readiness. If the child's initial experiences with reading are unfavorable, his attitude toward reading is likely to be unfavorable. If the child's experiences with other children have been unfortunate, his attitudes may be reflected in undesirable behavior. Hence, it is important for the teacher to foster the development of desirable attitudes because of their potency in readiness for learning.

block learning. Second, awareness of satisfaction which facilitates learning should be systematically fostered by making the child conscious of small increments of growth. Third, activities should be of sufficient duration to give the learner a feeling of satisfaction. Short periods of concentration interrupted by bell-ringing may produce unpleasant feelings because the child is prepared for continued action. Fourth, prolonged concentration on one activity may produce boredom and a decided reduction in feeling tone that may condition the learner against an activity. For example, the day-after-day discussion of a unit on Indians may cause interest to wane rapidly and, therefore, introduce a motivation problem for the teacher. Fifth, basic needs of change should be recognized in school programs by varying the activities. Sixth, energy output for learning will depend to some degree upon the attention given to external learning conditions such as the adjustment of the furniture to fit the child, the ventilation, the temperature, rest, and so on. Seventh, creative activity should have a definite place in the school program to stimulate the pupils and to serve as an antidote to drill. These are only a few of the educational implications that merit consideration in planning the school program so that feeling tone is given proper recognition.

EMOTIONS

Emotions play a major role in the learning process because emotion is one aspect of all behavior. Recognizing this fact, the American Council on Education authorized Daniel A. Prescott, as chairman of a committee, to prepare what is now known as his classic report on *Emotion and the Educative Process* (41). This book is a valuable contribution to education because significant studies have been summarized and the educational implications clearly stated. The report has been a valuable reference for the preparation of this discussion. Emo-

tion, as Prescott points out, directly influences learning.

In dealing with the emotional aspect of child development, the teacher should keep in mind several considerations. First, emotive behavior is energized behavior (53, p. 207). It is a part of goal-seeking behavior that is "maintained through intraorganic stimulation." Emotion is a characteristic of behavior that is accompanied by physiological readjustments. Second, emotion involves evaluation, "thinking," or insight. That is to say, the emotional reaction depends upon the individual's evaluation of the total situation. Third, emotion provides for an increase in energy output to meet a challenging situation. Fourth, learning and previous experiences modify emotions by dictating somewhat the stimulation of them and the resulting pattern of behavior used by the individual. In short, emotion is determined by the situation and the effect. Fifth, each emotion does not always have a specific pattern that can be identified apart from other emotions called into play in a given situation. Sixth, Prescott (41, p. 18) quotes Georges Dumas' three levels of emotion: mild emotion, strong emotion, and disintegrative emotion. The adjustive reaction used by the individual depends upon the intensity of the shock. This conclusion has profound significance in education.

Mild Emotion. The three levels of emotional functioning distinguished by Dumas and described by Prescott (pp. 18-36), have far-reaching implications in the classroom. Mild emotion brings about some change in physiological functioning and is, therefore, "tonic to physiological processes in general." The chief point is that the effects of mild emotion appear to be desirable. In some discussions of emotion, no distinction is made regarding the intensity of the reaction, and the impression is given that emotion is a handicap to learning. Of course, individuals vary widely in regard to emotional reactions to given situa-

"The Rhythm Band Writes Music, Too"

Public Schools   *York, Pa.*

So, also, is the attitude of cheerfulness which can be developed by providing means of satisfaction for tasks well done. The attitude of fair play, where self as well as others are concerned, is important and possible.

Development of tolerance, sympathy, helpfulness, and willingness to work and to plan coöperatively are samples of other attitudes which are part of the difficult task facing school people today. This task must naturally be shared by parents and other citizens.

BASIC CONSIDERATIONS

The teacher is fortunate in having a considerable mass of professional literature dealing with child development to which she can refer. Some of the basic considerations regarding emotional and social adjustment are summarized in the following statements.

1. Guidance in personality development is most fruitful during the preschool and elementary-school years. Hence, an enlightened program of prevention should be a part of the larger elementary-school program.

2. To some degree the child's environment should be adjusted to his needs, although he must learn how to adapt himself to his environment in many respects.

3. Every individual has a "drive toward success." For each individual this drive is present in a somewhat different form, depending upon previous experience, capacity for achievement, the degree to which he is motivated, desire for recognition, and the like. When the "drive for success" is frustrated, behavior is likely to reflect social maladjustment. The need for successful achievement is a basic need.

4. Individuals are motivated by a desire to belong to a group. A failure to be promoted or inability to cope with prescribed learnings are threats to this social security and, therefore, to normal adjustment.

5. The behavior of the individual is purposive—it satisfies needs. Cheating, bullying, lying, stealing, showing off, and the like are used to meet psychological needs. Since this behavior may "make sense" to the individual, it is the responsibility of the teacher to get at the underlying causes or needs.

6. Growth comes from within. This

Attitudes are highly potent factors in the educative process for at least two reasons. First, attitudes influence behavior. That is, they condition readiness for a given activity Attitudes give meaning to what the individual sees, hears, and does. Second, attitudes are the core of personality A child's affective experience is pleasant to the degree that his relationships conform to his attitudes. Until a child has formed working attitudes, he is likely to be unable to deal adequately with his social environment.

Several research workers have found that reading is one of the most disliked school subjects If this attitude is at all common, then it would appear to be high time to give more attention to ways and means of fostering desirable emotional reactions toward reading Generalized dispositions toward school and learning are a composite of specific reactions and "momentary integrations"

The modification of attitudes is one of the primary jobs of the remedial teacher. Aversion to reading usually arises from an inability to cope with reading activities Continued frustration licks the individual so that an attempt to help him over his difficulty requires special attention to attitudes If the redirection and modification of attitudes is of such importance in remedial reading, then it would appear reasonable to conclude that the development of desirable attitudes toward reading should be one of the first considerations of the teacher in the primary school

Attitudes of approach may be developed in a number of ways (1) by the co-operative building of achievable goals, (2) by guiding the pupil in his acquisition of skills and abilities to do a job; (3) by developing a clear understanding of how to do a job, (4) by guiding the pupil into the use of materials that are understandable to him; (5) by making the learner aware of small increments of growth; (6) by calling attention to, in fact celebrating, success; (7) by encouraging each child to surpass his own previous achievement rather than to compete with others; (8) by encouraging spontaneity; (9) by helping the pupils develop an interesting and a stimulating schoolroom environment; (10) by letting the child feel teacher confidence in his ability; (11) by giving every child opportunities to assume responsibilities; (12) by giving children reading materials compatible with their intense interests.

Attitudes of withdrawal may be developed as surely as attitudes of approach Here are some ways in which undesirable attitudes may be encouraged: (1) by teacher assignment of learning tasks without the co-operation of the learner; (2) by goals of learning that are beyond probability of achievement; (3) by failure to challenge the best efforts of the learner; (4) by wholesale failures to promote children, thereby creating an over-ageness problem; (5) by teacher assumption that a child with an unanalyzed learning disability is "dumb"; (6) by teacher failure to appraise learner interests, (7) by forced restriction of pupil's social activities to provide additional time for remedial purposes; (8) by use of disciplinary procedures that breed antagonism and insecurity; (9) by over-emphasis on extrinsic rewards such as gold stars, number of books read, and the like, which detract from the real purpose of the learning activity. These are only a few ways in which poor attitudes may be fostered

In *Phi Delta Kappan* (December, 1942), Superintendent Will C. Crawford made these pertinent suggestions regarding the development of attitudes:

If education includes the normal development of the whole person, it is not sufficient that information be acquired and skills be learned It is also important that proper attitudes be developed on the part of pupils

Along with privileges of modern living must go definite responsibilities Tasks, some of which are pleasant and others distasteful, must be successfully accomplished. An attitude of willingness to accept a fair share of responsibility is essential to modern success

Emotional survival depends to no small degree upon the satisfaction of these basic needs.

In discussing "harmony with reality," Prescott makes these pertinent comments (41, pp. 120-121):

Authority beyond our control gives us our physical structure with its peculiarities, its weaknesses, and its incessant demands for function Authority beyond our control gives us our parents and relatives and takes them away in death. Authority beyond our control has established the social order in which we find ourselves, with its conventions, its economic base, its institutions, and its laws. Extra-human authority orders the sun in its course, sets the stars in their places, and brings the changing seasons in their time. It has created a world of order and beauty, it also brings natural disasters, infections, pests, droughts, and a thousand uncertainties which set human plans at naught These are all realities that have to be reckoned with, but they do not foredoom us to defeat if we harmonize our behavior with them As the child progresses through school, he finds the reality of ordained relationships between the various forms of matter and the different manifestations of energy. He can use these things for his own ends, in so far as he learns the laws through which authority operates and makes his own behavior harmonize with these laws.

Over and over again, human beings have been frustrated and confounded by realities. Then compensatory behavior appears, it ranges from that of the medicine man, with doctor, and voodoo worshipper to that of our most eminent scientists, philosophers, religious teachers, and artists. The latter are assisting tremendously in clarifying human insight into reality so that behavior may be harmonized satisfactorily with the laws under which it operates So it is that each individual faces the problem of harmonizing his own life with reality, using whatever help he can get from science, philosophy, religion, and aesthetics. He cannot dodge the need for harmonizing his behavior with reality, and the penalties for failure to achieve this harmony may be most severe

TEACHER GOALS

Professional literature on readiness for reading emphasizes social and emotional

adjustment as one of the major factors in success with reading activities. This facet of reading readiness is, of course, highly important at all grade levels. Some of the specific goals may be outlined as follows:

I. To stimulate a desire for and an interest in reading
A. To maintain the child's attitude of wanting-to-know
B To promote the child's insight into the relationships between symbols and the things for which they stand
C. To encourage the child to browse in books
D. To stimulate the child's interest in stories and books

II To broaden interests
A. To advance interests in various types of children's literature
B. To extend interests in environment
C. To promote interest in music, arts, and crafts
D. To set the stage so that learning is a personal problem for the child
E. To develop attitudes of interest in the activities of others

III. To develop independent work habits
A. To develop habits of concentration for reasonable periods of time
B To develop ability to assume responsibility for own supplies
C. To develop ability to assume responsibility for own conduct; that is, to work without immediate adult supervision
D. To develop the ability to follow directions
E. To develop the ability to work without interrupting the activities of classmates
F. To develop ability to begin an activity immediately without dawdling
G. To develop ability to plan a sequence of steps for completing a task
H. To promote a feeling of satisfaction in completing an activity

IV. To develop an awareness of pupil responsibility to the group
A. To develop the ability to co-operate with committees

means that the teacher cannot learn for the child but that she must guide and direct this inner growth It is not possible to prepare a meal—as those who attempt to regiment instruction find themselves doing—into which the behavior of every child must fit.

7 Growth in personality development follows a somewhat different pattern for each child These growth patterns are as different as the shape of the head and height The characteristics of these patterns are laid down at birth and are modified by environment This means that the teacher can increase her influence to the degree that she understands, recognizes, and respects the hereditary basis of the child's constitution and his pattern of maturation

8 Education designed to enhance personality development must consider the whole child in relationship to the total setting in which he lives The child's most rapid development has taken place during the preschool years Through approval and disapproval of games and play activities, the home has controlled experiences contributing to physical development Intellectual growth has been modified, stimulated, or retarded by parents Some children come from homes where reading, interesting conversation, and other language activities play a dominant role, while others come from homes in which emphasis is placed on observations of nature, skills, and the like Social poise or uneasiness, interest in people or a disregard for others, self-reliance or dependence on adult help—these and other social patterns have been influenced by the home Emotional, social, and economic factors in the home condition the child's preschool experiences From this physical, mental, and social development, personality emerges

9 School policies may facilitate or interfere with social and emotional development The extent to which the three R's narrow the curriculum of the child, the attention given to the needs of those pupils who can profit from normal class activities, the preparation of teachers, the degree to which textbook authors are allowed to dictate the curriculum, practices which produce regimentation, promotion practices—all these are reflections of school policies which make rich living in the classroom administratively possible or produce a life of frustration.

10. Social and emotional adjustment problems may be complicated by physical handicaps Some of these physical difficulties may be corrected by health specialists, others may require compensation by adjusting learning conditions to individuals and by adjusting the individual to his particular handicap.

11. The teacher's personality is a potent factor in the child's emotional and social environment Pupil attitudes and behavior often reflect those of the teacher. Spontaneous adults usually have little difficulty in establishing harmonious working relationships with children Some teachers become involved personally in problem situations; others treat the problem objectively and with an awareness of the involvements and complexities

12 Emotional health is dependent upon the meeting without conflict of the individual's urges and drives and the restrictions imposed upon him by his environment These basic needs have been discussed in terms of drives, hungers, appetites, and the like Some of the basic needs of the individual include (1) Activity. Muscular activity and rich emotional experiences contribute to emotional health (2) Regularity of rest. In order to relieve tensions, to avoid worry, and to develop good feeling tone, it is important to establish regular rest periods (3) Affective security. A feeling of belongingness to ever-widening social groups appears to be a basic need (4) Effectiveness in dealing with social situations One basic need of every individual is effective techniques for successful participation in social activities (5) Effectiveness in dealing with things; that is, with facts in the environment

VII. To develop loyalty

    A. To encourage loyalty to group

    B. To encourage loyalty to school

    C. To promote religious tolerance

    D. To develop tolerance and pride in foreign parentage

The aim of the teacher is not necessarily so to set the stage that the child must meet no conflicts. Instead, she must aim to guide the child in adjusting to a variety of social situations and to reduce to a minimum situations which evoke unnecessary fears, stresses, strains, and emotional conflicts. The child must be taught how to face problems aggressively; but this cannot be done by placing him in situations where he is frustrated continuously.

It is the job of the teacher to guide the development of the child through social activities in the classroom. The drill master who regiments instruction falls far short of the social goals of education. In a recent cartoon, a sergeant is lecturing his men and concludes with the admonition, "How do you expect to learn to think for yourselves if you don't do what I tell you!" This attitude, of course, has no place in either a regimented or a differentiated learning situation.

salvage an automobile after the garage has burned. A part of the "ounce of prevention" is the appraisal of a pupil's needs when he is admitted to the group.

Establishment of Rapport. The establishment of harmonious working relationships between teacher and pupil and among pupils is an important step toward the prevention of social and emotional maladjustments. Constructive relationships exist in the classroom to the degree that the teacher is himself, that the pupils are themselves, and that open-mindedness, fair play, and spontaneity are displayed and encouraged. Toleration of and respect for individual differences characterize a classroom where rapport has been established.

Group Goals of Behavior. Social adjustment may be promoted and many disciplinary problems may be avoided by the co-operative building of group standards of behavior. This is especially important in classrooms where the teacher differentiates instruction. One of the problems which confront the teacher is that of providing guidance in how to live together. This is more easily accomplished if the teacher and pupils undertake co-operatively the establishment of goals of behavior. By this means the unpleasant

B. To develop the ability to plan group or individual activities under the guidance of a teacher

C. To develop co-operative attitudes

D. To develop the ability to share ideas and possessions with other children

E. To develop the ability to participate constructively in a group activity

F. To promote the ability to evaluate qualifications for leadership in a given activity

G. To further the child's ability to concede individual ideas and choices in favor of group decision

V. To promote social adequacy

A. To encourage the pupil to make friends with the teacher and other children

B. To promote ability to enjoy play activities of other children

C. To develop the ability to "give and take" in social activities

D. To promote self-confidence borne of self-respect

E. To develop an intelligent and reasoning attitude toward authority

VI. To develop courteous responses in social situations

A. To develop poise in meeting people

B. To develop the ability to listen attentively

C. To sensitize the child to the need for taking turns in informal discussions, play activities, and the like without monopolizing the situation

D. To develop habits of courtesy in conversation, such as, "Yes, Miss Smith," rather than "Uh-huh" or "Huh-uh"
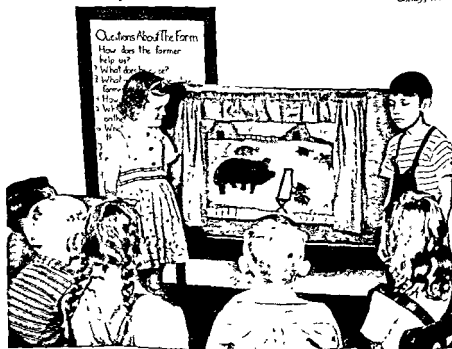
E. To develop habits of working without interrupting the teacher when she is working with other children

F. To develop a healthy attitude toward criticism

A TERMINATING ACTIVITY

Clark M Frazier, Bernice Bryan   Cheney, Wash

some adjustments. Billy was seated in the front of the room with his "bad" ear toward the outside wall so that he had maximum opportunity to make use of his "good" ear. This seating arrangement plus an enlightened teacher prevented maladjustments from piling up.

A glandular imbalance can be a factor in personality development. Bobby was very chubby, lethargic, and apparently a slow learner. An individual test of intelligence revealed above normal mental ability. A conference with the family physician resulted in the decision to make a basal metabolism test. This test and other follow-up checks indicated the need for glandular treatment. During a period of several weeks, the teacher worked hand-in-hand with the doctor and unusually fine results were achieved. Bobby is no longer a "problem child" in that school.

A lack of rest may be a factor in some adjustment cases. Terry came to school tired out, especially on Mondays. During the day he became very irritable and unco-operative. The teacher might have resorted to extreme disciplinary measures and, thus, might have multiplied Terry's adjustment problems. Instead, the teacher conferred with the parents regarding his sleeping habits. It was learned that the father encouraged Terry to attend late movies over the weekend and that he was permitted to retire at irregular hours from 10:00 p.m. to 1:00 a.m. When the teacher very tactfully pointed out the mental health hazards being set up, the father got the point and kept his promise to help Terry set up a rest schedule he could live on. In a few weeks' time, Terry settled down to his new schedule and tensions were reduced substantially.

Analysis and Correction of Learning Difficulties Children with specific learning difficulties often are handicapped in their attempts to make adequate emotional and social adjustments. For example, Grace was teased and bullied by her classmates because of her speech handicap. This set up emotional barriers to her successful participation in all class activities. Helen was a nonreader and was made to feel deeply her disability. Too often language handicaps are not analyzed and, therefore, not corrected. In such instances, desirable personality development is fostered to the degree that learning difficulties are analyzed and corrected.

Reduction of Emotional Strain and Tensions. When considering possibilities for the prevention of maladjustments, it is well to appraise classroom and school conditions in terms of emotional strain and tensions. In this connection, the first step would be for the teacher to take a look at herself. A high-pitched and unpleasant voice may keep everyone on edge, and, therefore, should be appraised. Since there are a great number of speech clinics in the country, the teacher should have little difficulty in getting help to correct an unpleasant voice. Because a high-pitched voice may reflect tensions, it is well for the teacher to regard regular physical exercise highly. Another factor in producing emotional tensions is the hurried and bustling teacher. A daily period of co-operative planning with the pupils should help to relieve this situation. And, above all, the teacher might well appraise her reasons for teaching and her attitude toward the pupils.

Tensions are produced also by unreasonable demands for achievement by the administration or the teacher. When pupils are placed in situations where they are attempting to deal with problems and materials beyond their grasp, evidences of frustration are certain to appear. One of these symptoms is tension. For example, when children attempt to read material that is too difficult for them, they frown, squirm, and make exaggerated movements of the hands, legs, and body. To prevent frustration, the teacher must have well-grounded understandings of abilities and needs.

Periods of relaxation for both teacher and pupils should be planned. Play-

the discussions and of helping the children organize their standards without being dictatorial There is also the necessity of evaluating pupil behavior in terms of the standards without resorting to strong teacher condemnation of violators and without developing a group of tattle-tales " The point is that the standards should be developed co-operatively and that life in the classroom should be directed toward the development of co-operative attitudes

Commendation for worthy behavior is a direct means of improving attitudes. A number of significant investigations have been reported on the relationship between the strength and persistence of motivation and learning In general, these investigators learned that knowledge of success improved the efficiency of learning and of recall, and that knowledge of failure reduced motivation and probably introduced emotional elements that retarded learning These findings might be expected to hold true in both social and academic learning situations

Group Goals of Learning Learning is motivated to the degree that personal needs are satisfied. To give learning a rich emotional tone, the learners must be let in on the goals to be achieved This is done by guiding the pupils in setting up questions to answer or problems to be solved by means of the activity. The clear statement of the problem in the language of the pupils gives a long way toward making the problem understood and toward directing learner energies to the solution of the problem. Emotional strain and tensions are reduced when the pupil knows what he is doing and why he is doing it

Study of Physical Well-being It is no idle statement that a sound mind rests in a sound body Probably this is one of the most overlooked factors in adjustment problems. Here are some examples. Dick was well trained in the social amenities, but in the afternoon he appeared to be only passively co-operative and to be disinterested in the classroom activities.

A less understanding teacher would have kept him in after school until he finished his work, but fortunately Dick had a teacher who was alert to the need for a study of the causes of his lethargic responses Since there was some evidence of a visual inefficiency, a complete visual analysis was made by a competent vision specialist This analysis revealed a visual inefficiency induced by a toxic condition With the co-operation of the parents, the toxic condition was located, treated, and corrected. Dick's mental alertness showed remarkable improvement This is one way to prevent emotional maladjustment.

Jack was having unusual difficulty in reading situations, especially in the afternoon. He was frustrated by his reading activities and became a nuisance to everyone in the classroom He was unable to settle down for any reasonable period of time. The teacher noted that one eye tended to turn in *during the late afternoon* A competent eye physician found nothing wrong with the eyes, but a vision specialist uncovered a visual inefficiency that was later found to be caused by a *kidney infection* When the infection was cleared up, the teacher had little difficulty in adjusting Jack to regular classroom activities

Betty dawdled and appeared to be totally disinterested in class activities, especially those based on blackboard work. The teacher suspected a visual *handicap for distance seeing Because* the difficulty had gone undetected for such a long period of time, it was necessary for the vision specialist to fit her with very thick lenses After the necessary glasses were obtained, Betty took a new interest in blackboard activities

Billy appeared to be inattentive and *thus exasperated the teacher* It was often necessary to repeat questions in order to clear up Billy's blank look. A hearing impairment was suspected A ten-minute test revealed the nature of the difficulty. The hearing specialist reported that he could not correct the difficulty. This made it necessary for the school to make

Awareness of Progress. Generally speaking, one of the most potent factors in motivation is awareness of small increments of growth. This holds true in social situations as well as in academic situations. In this connection, the teacher can guide each child as a manager would guide a prize fighter; that is, the child can be led to accept increasingly difficult challenges. For example, a child may learn first to make announcements to his own group, then to another grade, and finally before the school assembly. Causing the learner to be aware of progress is a double-headed proposition: first, guidance must be given in developing skills and attitudes for handling increasingly complex social situations; second, the learner should be given a backward look in order to call attention to gains.

Differentiated Instruction. Not the least important means of preventing maladjustments is that of differentiating instruction. While the very nature and extent of differences among children at any one age or grade level make imperative some differentiation of instruction, the logical conclusion is not individualized instruction. Highly individualized instruction often misses the point because opportunities for give-and-take in social situations are lacking.

Language is a social tool and, therefore, language skills must be developed in social situations. When language is used in the classroom to meet social needs, the children learn not only "how" to use this tool, but also "when" to use it. It is as important to know "when" to contribute to discussion and "when" to listen to others as to know "how" to talk. Likewise, it is as important to know "when" to read and to write as it is to know "how" to read and write. This emphasis on the development of language skills in social situations calls attention to the necessity of caring for individual needs in class and group situations.

The prevention of social and emotional maladjustments requires attention to the needs of the developing individual. Differences rather than likenesses characterize the children in any classroom. These differences exist in respect not only to academic achievement, but also to personality development. Hence, any plan for differentiating instruction in the classroom must recognize the total needs of each individual.

Any plan for differentiating instruction is effective only to the degree that the teacher is skilled in appraising the reading level and the specific needs at that level for each child in the classroom. Language readiness for reading instruction and reading level may be appraised by means of an informal reading inventory. For this purpose, a graded series of textbooks—basal readers, science books, etc.—may be used. By reading to the child from materials of increasing difficulty and checking comprehension, the teacher may use the child's hearing comprehension as an index to probable reading capacity. By having the child read silently and orally from the same materials while reading behavior is carefully observed, the teacher may determine reading level and specific needs. A careful inventory of a child's reading-readiness and reading status will go a long way toward making possible the giving of appropriate instruction.

In any effective plan for differentiating instruction, provision must be made for class, small group, and individual activities. While teaching requires dealing with groups of children, learning is an individual matter. In order to further the maximum development of each pupil by providing equal learning opportunities in the classroom, the teacher must be an able administrator. "All-class" activities should capitalize on individual and group contributions and should motivate each individual to improve his contributions and the effectiveness of them.

In general, two approaches have been made to the differentiation of reading instruction: grouping within the classroom and differentiation for everyday

PLANNING A SURPRISE DEMONSTRATION

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ground activities may be relaxing for some pupils, but others may benefit more from rest. Singing, reciting poetry, reading children's literature, telling stories, arts and crafts projects, and the like may provide relaxation, depending upon the attitudes. If the pupils are required to memorize songs and poetry to avoid remaining after school and if they are required to tell stories or to draw a teacher-dictated picture, then tensions may be induced.

It goes without saying that for the pupil school experiences can and should be as pleasant, as satisfying, and as emotionally rich as out-of-school experiences are. In a modern school, mental hygiene is of major concern to the administrative and teaching staffs. When mastery of the three R's is given precedence over all other school matters, wholesome personality development is scuttled.

Social Grouping. In many modern school systems, it has been learned that social grouping tends to prevent social and emotional maladjustments. This is difficult to achieve in some situations because of the attitudes of the administration, the teachers, or the parents. For example, in some schools children are not promoted to the second grade until they have achieved certain goals in reading. This standard is adhered to in spite of the fact that as many as forty per cent of the pupils cannot attain that goal. Such practices produce overageness and maladjustments. The trend is definitely toward the social grouping of pupils because the fact of differences among pupils points in that direction.

analysis six years later, Richard was found to have normal intelligence, less than preprimer level of reading ability, and a deep-seated feeling of hopelessness regarding school. As a result of the reading clinic analysis, his mother joined the volunteers who warn parents of the undesirability of pushing children ahead in spite of teacher recommendations. For Richard, the damage had been done.

Class Size. The reduction of class sizes in some school situations would make it possible for the teacher to give more attention to the basic needs of each individual. It is possible to go to the extreme of organizing classes that are too small as well as too large. The writer entertains the personal opinion that first-grade classes should enroll approximately twenty pupils and classes in the intermediate grades should be held down to about twenty-five pupils. When a teacher has more than this number of individuals to guide, the marking required in a typical classroom soon reduces a professional teacher to a bookkeeper. In a modern school where anecdotal records, qualitative descriptions of behavior, and

the like are emphasized, guidance records assume even greater importance. Furthermore, since the old-time report card is being displaced by parent-teacher conferences, the teacher's time budget is drawn on heavily. In schools where class enrollments of thirty-five to fifty are approved, the educational program is jeopardized.

FALLACIOUS PRACTICES

By their practices, teachers can go a long way toward developing sound mental health or poor mental health. Some of the practices that contribute to emotional instability, fear, tensions, affectional insecurity, shyness, hostility, defiance, defensive behavior, and the like may be described as follows:

Regimentation of Instruction. Teachers who take great pride in being grade specialists are likely to regiment instruction in a number of ways. First, every child in the grade may be given the same learning prescription regardless of capacity, needs, or interests. For example, every child in the first grade may be taken at the same pace through a read-

READING LEADS TO EXPERIMENTATION

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reading activities Since basal readers are widely used, considerable attention has been given to grouping within the classroom Teachers are advised to form two, three, four or more reading groups in the room—the number of groups depending upon the range of pupil abilities, availability of materials, previous experience with grouping, and so on. While grouping is a low level of differentiation, it is a step away from traditional practices of regimentation and, therefore, is to be condoned. By grouping children within the classroom for reading-readiness activities or for reading instruction, the teacher is in a position to give more appropriate instruction than would be possible without the grouping The children are less likely to be frustrated by activities that are too difficult or too easy.

Formal grouping within the classroom is only one approach to the recognition of individual needs. A second, more comprehensive, more promising approach provides for individual guidance in all reading situations. This is achieved by using class activities to stake out worthwhile areas of interest, to define problems, and to give direction to group and individual efforts; by using group situations to plan committee action and to define individual contributions; and by using individual-learning situations to get down to the business of the day. This second approach has several advantages: (1) Language skills are developed in social situations. (2) Each pupil reads material within his grasp and works on a problem akin to his interests (3) The activities are purposeful to the learner. (4) Each pupil is given an opportunity to contribute to class activity. (That is, the other children will not have the same instructional material as a source of information) In general, this approach which recognizes individual needs and interests holds rich possibilities for developing social individuals and equipping them for life in a democratic society.

The development of adequate social and emotional adjustment is something

that must be worked at every day. If instruction is administered so that frustrations abound, then unwholesome personalities will result. When instruction is given in terms of individual requirements, i.e., when it is differentiated, the teacher has laid the groundwork not only to prevent emotional aberrations and social maladjustment but also to do some constructive work.

Parental Understanding. By and large, children are what they are because of what adults have done to them. This is especially true regarding the relationship between readiness for reading and social and emotional adjustment. As the director of a reading clinic, the writer has seen the harmful effects on personality of the parents' effective demands to push their children into first-grade and typical reading activities before they are ready. Parental understanding of the basic needs of school children can do much to prevent social and emotional maladjustments of children.

Richard presented a good example of how a parent can make school life a path of thorns. Richard and Mary, his twin sister, were born prematurely; they were somewhat retarded in learning to talk; and they were sent to kindergarten at four and one half years of age. After one year in kindergarten, the teacher recommended Mary's admission to the first grade but attempted to dissuade the parents from sending Richard with her. In spite of this considered recommendation, the twins were sent to the first grade at five and one half years of age. To make matters worse, all of the children in this grade were taught the same things at the same time. Little or no differentiation was attempted. Mary made satisfactory progress in this factory type of school situation, but Richard acquired only a distaste for school in general and reading in particular. His failure was emphasized in two ways: by his comparison (or contrast') in the school with his contemporaries and in the home with Mary. When admitted to the reading clinic for

dertaking, and to put zest in his activity when learning is personal. In short, the learner must have a reason for a course of action. These conditions are not met when the teacher dictates the learning by doing all of the planning and by prescribing all of the learning. Teacher dictation of learning may result in meaningless drill that promotes discord among the pupils, creates emotional tensions, and produces undesirable competition

One of the pitfalls into which a teacher may fall is that of keeping that which is to be learned a secret until a test is given. The pupils are supposed to guess what the teacher is likely to ask. They are kept in the dark regarding the purposes of the activity. This type of teaching is a far cry from that in many classrooms where the children plan their activities with the guidance of the teacher, state their questions or problems, and propose ways and means of obtaining help or information. When learning is not viewed as a social process, one of the major goals of education—the promotion of social adjustment—is not likely to be achieved. Disciplinary problems are bound to arise in classroom situations where the pupils have not been let in on the goals to be achieved.

In some schools a fetish has been made of standardized tests Any means of appraisal should be used for the benefit of the learner. When standardized tests are held over the heads of children as a club, the teacher is making a gross misuse of tests. The writer has observed situations in which the children were taught to fear tests. In fact, one of the writer's clinic cases had a fear of tests that was traced back to an elementary-school teacher who informed the class that promotion depended entirely upon "passing" a standardized test. On the other hand, the writer has worked in public schools where pupils were offended if other children were given tests. In these situations, the children wanted to know how they were getting along. The development of right attitudes toward learning is dependent

to no small degree upon the uses made of appraisal devices.

Teacher dictation is evident oftentimes in her use of tests. Children can be taught to fear tests or they can be taught to welcome them as a means of finding out about their successful achievement and needs When they are held as a club over the heads of the pupils, unnecessary tensions are introduced to foil attempts at learning and to promote social maladjustments in the school situation. Freedom from unnecessary worry should be one of the major freedoms enjoyed by children

The repeating of questions and answers is another form of teacher dictation. Pupils are not encouraged to be good listeners when the teacher makes it unnecessary for them to heed their fellow pupils' questions and answers by repeating them What might be a lively class discussion degenerates into a dull pupil-recite-to-teacher situation.

Something is fundamentally wrong when the teacher does all the talking in the classroom. Too much teacher talk can beat pupils into insensibility. Too much talk on the part of the teacher produces fatigue and high tension on the part of both pupils and the teacher. Initiative, self-control, awareness of pupil responsibility to the group, habits of courtesy, and the like can be developed only in situations where the pupils participate in the adventure of learning.

Unanalyzed Learning Problems. Children with unanalyzed reading, speech, and behavior problems may be a source of trouble in the classroom. A pupil with a speech defect may be a target for the taunts of his classmates. Another pupil with a reading disability may be labeled as the class dunce. In one instance, the difficulty may be caused by an emotional disturbance, and criticism may add to the dilemma of the afflicted. In another instance, mental retardation, a visual inefficiency, or a hearing impairment may constitute the problem. When these unanalyzed learning problems are

ing-readiness book, preprimers, a primer, and first reader. In this type of situation, practically every basic principle of readiness for learning is violated. The teacher is more concerned about averages and where she should be at the end of the year than about deviations and where each of the pupils is. Professional literature abounds with evidence to the effect that personality maladjustments arise in profusion from this practice.

A second way of regimenting instruction is the requiring of all children to memorize the same poetry, songs, spelling rules, and so on. Since some children in a grade or class do not have the mental or emotional maturity to appreciate literature and music enjoyed by their more fortunate contemporaries, they often fail to achieve the cold and meaningless goals of learning imposed upon them by an uncompromising teacher. To meet this situation, the teacher sometimes develops "appreciation" by keeping the nonachievers after school for the purpose of sheer memorization. This practice, of course, promotes social and emotional adjustment in reverse gear.

A third approach to the regimentation of instruction is made by those who attempt to bring every child up to the class average. Mentally retarded children, slow learners, and pupils characterized by specific learning disabilities are drilled, drilled, and drilled until the teacher gives up because they "don't want to learn." That practice is as ridiculous as it would be for the school doctor to try to increase the height or weight of every child to a predetermined grade or class average. Nevertheless, samples of this type of classroom practice are not difficult to obtain. How must an otherwise normal child feel and react to a hopeless situation of this kind?

A fourth approach to regimentation is made by those who fail to promote children who have not achieved up to a given academic standard established by someone who had not appraised their capacities, abilities, or needs. It is a practice in some schools to retain children in the first grade until they "learn to read." Now it is quite widely known that some children may not be ready to read until they are nine years of age. In fact, some cases characterized by mental retardation may not profit from any type of systematic reading instruction until they are ten or twelve years of age. Even among otherwise normal children, one may find those who, for one reason or another, do not "learn to read" in the first or second grade. But still one finds occasionally a ten-year-old boy in the first grade or a fourteen-year-old boy towering above his third-grade classmates. How does a child feel and react to being required to sit or play for four or five hours every day with children years younger than he is? Educators who recommend this practice should get acquainted with the boy!

Probably one of the most unfortunate outcomes of attempts to regiment instruction is the effect it must have on the personality of the teacher. When she resorts to or is required by higher authorities to regiment instruction, she is embarking on a futile mission. As disciplinary and other social adjustment problems multiply in the classroom, mutually harmonious relationships between teacher and pupils are quite certain to break down. Neither the teacher nor the pupils can be secure in their relationships. The feelings, attitudes, and emotions are likely to be reflected in the pupils.

To promote the development of a wholesome, out-going, desirably aggressive, co-operative, and emotionally well-balanced personality, the teacher must guide the pupil in setting up achievable goals. In a classroom characterized by regimented instruction, a significant percentage of the class is not challenged. Regimentation, then, is a constant threat to personality development.

Teacher Dictation of Learning. Efficient learning is purposeful and zestful. A pupil is more likely to have an attitude of approach, to be interested in an un-

TEN O'CLOCK LUNCH

Ray Graham   *Springfield, Ill.*

Condemnation of weakness is no substitute for commendation of strength. If a child is told every day that he is bad or naughty, he will soon believe it and behave accordingly. Undesirable progress can be stepped up by the constant reminder, "You ought to be ashamed of yourself." These are ways to defeat the goals of education.

Another successful way to undermine group morale is to encourage pupils to tattle on each other. This is one way to find out who spilled the paint or who whistled when the teacher was "hearing a reading lesson." This is one way to point the finger of the teacher's suspicion toward the culprit so that "an example can be made of him." Under this kind of tutelage, children can be developed into cruel unsocial animals.

Weak teachers often use threats to discipline. Until the child learns that barking dogs seldom bite, he is kept in constant fear of adult authority by threats of "I will have to tell your mother" or "I will have to call your father over." When a teacher resorts to this form of discipline, she is exposing a glaring weakness to her pupils.

Teacher reactions to accidents in the classroom may contribute to pupil feelings of unfair treatment. Accidents are bound to happen in an interesting classroom where the children are not pinned to their seats by unreasoned authority. For example, when a child spills his

high level of professional competency. (4) The teacher must have given careful consideration to the specific goals of instruction. "What am I attempting to achieve with each boy and girl this year?" is a question she should have thought through. Unless education has reached a plateau where progress is blocked, there is need for improvement of instruction and specific techniques are being developed to make that improvement possible. The crying need at present in many schools is not refinement of techniques for regimenting instruction, but the use of already developed techniques for recognizing differences among pupils. As long as emphasis is given to the sheer memorization of subject-matter, childhood will continue to be impoverished by regimentation. Careful evaluation of the situation by educational leaders has resulted in a shifting of the emphasis from the regimentation and the memorization of subject-matter to child development.

No less an authority than Arnold Gesell has this to say about the need for understanding personality differences (49, p. 254):

Teachers may indeed assist the child in his growth; they may guide his growth, but he must do his own growing. The first and almost the last task of the teacher is to understand the child. The writer believes that the whole enterprise of education would gain enormously if we stressed the curriculum less and devoted more of our energies to interpreting the individuality of each pupil No two personalities are alike. It takes genuine effort and not a little insight to perceive and to respect the emotional peculiarities which every child brings to school

If we really focused on this difficult but fascinating problem of understanding individualities, a new atmosphere would seep into the schoolroom. There would be more tolerance, more kindness, and much more humor. More humor, because we cannot get a true estimate of ourselves or of others without that sense of proportion which is the sense of humor More kindness, because if we appreciate the formativeness of the child's personality, sarcasm and other unnatural forms

of punishment become impossible. More tolerance, because we would see the "faults" of children as symptoms of immaturity.

When teachers concern themselves with the general development of the child, teaching becomes a stimulating adventure For the pupils, the acquisition of information, skills, abilities, and attitudes in purposeful learning situations becomes zestful and animated. All learners are challenged. Frustrations which characterized regimented schools are no longer in evidence. Each child is working and contributing to his own social group

Accepting the responsibility for rounding out the class program with dramatics, arts and crafts, and music.

The development of creative ability and appreciations is now conceded to be one of the fundamentals of education. In regimented schools, repression is the watchword, while in schools where differentiated instruction is an actuality expression is a basic consideration. When children participate in dramatizations, arts and crafts activities, and the like, they are given opportunities to create, to enjoy, to achieve emotional security, to develop appreciations of beauty, to acquire poise, and, in general, to improve their emotional status. Regardless of the number of specialists or supervisors in music, arts and crafts, and dramatics that are available in a school system, the extent to which these activities function in the lives of the children depends upon what the classroom teacher does. An unimaginative teacher keeps her pupils in a poverty-stricken emotional environment; an enlightened and inspired teacher helps her pupils build a rich emotional environment.

Developing the class program around units of activity, or centers of interests, by working with the pupils.

Regardless of the time and energy given to the development of courses of study, the textbooks adopted in some schools become the course of study.

paints, the teacher can berate the child publicly or she can help the child so that the incident is not so likely to recur. No child is likely to spill paint deliberately.

Keeping the child in after school or denying him recess periods can be used to an excellent advantage for developing poor attitudes For example, Donald was making excellent progress in remedial reading until the teacher had a fight with him and demanded that he stay in after school for his extra help in reading. Up to this point, Donald appreciated the privilege extended to him, but after the incident he looked upon the remedial reading as another form of punishment. Definite evidence was obtained that progress literally ceased at that time. Other teachers have been known to develop strong pupil dislike for poetry by requiring memorization during recess periods and after school hours Arbitrary decisions to deny a pupil his privileges are one sure way to promote discontent

Genuine respect for a teacher is shown in the behavior of the pupils. Their respect for teachers is lowered when corporal punishment is resorted to, especially before other pupils Deprecation of efforts in social situations is no way to build learner self-respect Furthermore, no teacher can build desirable attitudes toward books and other instructional materials when she poses as a walking compendium of human knowledge. This problem of maintaining the respect of pupils is a delicate one It isn't a tangible something that can be bought once and for all time It comes from fine, hightype, and inspired living with boys and girls. The teacher who commands respect is one who helps the children achieve higher standards of living in a social sense Unsavory disciplinary practices reduce the standards of social life in the classroom.

The whole matter of pupil and teacher interests is intimately related to social and emotional conditions in the classroom. This means that the teacher must have techniques for getting the children to share their interests. The teacher who is acquainted with the activities of the pupils has a better opportunity to guide the development of worth-while interests This calls attention to the need for a teacher who is interested in the Brownies, Cubs, and similar groups. The teacher who only sees the child in school does not see the whole child. Classroom activities are given a lift by teachers and pupils who share many interests and, therefore, are qualified to work together.

Fair treatment is all children expect. Disciplinary problems are conspicuously absent in a classroom where the teacher and the pupils co-operatively build the standards of behavior by which all are to live. This gives justification to standards and minimizes the necessity for teacher-made rules.

TEACHER OBLIGATIONS

In providing for the systematic development of emotional and social adjustments, the teacher has several obligations which may be listed and described as follows

Placing the emphasis on broad child development rather than the memorization of subject matter

This emphasis has several implications: (1) The teacher must be sensitive to and have high regard for the differences that exist among pupils at any grade or age level (2) The teacher must have acquired techniques for appraising the nature of differences that govern specific developmental needs. Physical handicaps should be detected; limitations in capacities for learnings should be recognized; background deficiencies should be identified; and achievement levels in various facets of development must be appraised (3) The teacher must have acquired techniques for administering classroom activities in terms of individual and group needs and interests. The low-paid clerk may be able to hold classes and hear recitations when instruction is regimented, but a well-prepared teacher is required to differentiate instruction at a

orange-box movie device. And so on. Careful guidance rather than teacher dominance is essential to the kind of living in the classroom that promotes social and emotional development of all the pupils.

Guidance is needed in the selection of leadership. Through group discussion the kind of individual who should be chairman of a given group activity can be described. This description of qualities is best done before personalities are brought into the situation. Goals for personality achievement are established by this means. The teacher doesn't dictate; she guides. As a result children practice "living together."

The development of class programs with the pupils stimulates spontaneity, promotes co-operative attitudes, and encourages mutual tolerance. This point is ably summarized by Harold H. Anderson (40, p. 253):

> Growth, or the development of individual potentialities to their utmost, is the ideal in dealing with children. Optimum growth is achieved under conditions of spontaneity and harmony. Children learn from those about them that they are or are not respected as individuals. They know whether their teachers tolerate spontaneity or not, and under what circumstances spontaneity is tolerated or perhaps encouraged. They also know which teachers are themselves spontaneous and openminded. They learn to meet aggression with aggression, and they give way before the tolerant yielding of a sympathetic, understanding adult.
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> That rare quality of rapport, which is essential for the work of the clinical psychologist or the visiting teacher, is simply a condition where an adult and a child are mutually tolerant of each other's differences, where each accepts the other as he is, respecting him and being respected. When a teacher secures rapport, the child is not afraid to be himself, he has no fear of being spontaneous. It is significant that spontaneous adults seem to secure rapport with children rather easily, while others do not. Wise principals and classroom teachers will strive, first of all, to attain this happy and constructive relationship with their pupils.

Summary

Mental hygiene is the very core of an educational program in a democratic society. The evolution of schools to higher levels of efficiency has been brought about to no small degree by the application of the basic principles of mental hygiene in education. While the last word has not been written on this crucial factor in learning, the teacher is now afforded at least a basic understanding of how wholesome personalities may be developed.

A fundamental conclusion to be reached in this discussion of social and emotional readiness for reading is that each child is unique unto himself. To understand and to capitalize on these individual differences, the teacher is obliged to be a student of mental hygiene and character education. When the teacher has achieved basic understandings regarding inner-adjustment mechanisms and social behavior, the problems of children become challenging and give meaning to guidance.

Teachers often are reminded to begin where the learner is. This is no small order. Children vary widely in academic achievement; some excelling in language, others in mathematics. Children vary no less widely in their social adjustments and levels of emotional maturity. This matter of beginning where the child is involves more than an appraisal of sheer academic achievement.

The day has long since passed when a lawyer or a housewife or any other layman with a college degree can be admitted at once to the teaching profession. Society has wisely decided to put educational guidance in the hands of those who have dedicated their lives to this most important task. The citizens of tomorrow are being developed in the homes and classrooms of today. Techniques of solving the crucial social problems that lie ahead are being acquired by today's school children. This is a challenge which educators must accept.

Quite often, teachers are appalled to find that as much as two hundred dollars have been spent on basal textbooks in a classroom and that only six to ten different books—all carrying the same grade designation—have been obtained While it is probably true that basal textbooks published on a mass production basis are the least expensive books to purchase, it is not true to fact that all children in a given class can profit from the use of the same book This means, then, that a more judicious use of basal textbooks must be made by the classroom teacher Since differences rather than likenesses characterize a group of children, the teacher is confronted with the problem of organizing instruction on some other basis than the hearing of lessons from a single textbook This situation has led to the recommendation that instruction should be organized around large areas of experience to establish a community of interest to which every pupil can contribute.

If children are not to give passive attention as they are required to do in regimented schools, then they must learn how to exert self-control and how to take responsibility and initiative Bedlam, confusion, and chaos can be avoided by careful planning with the children Self-control, initiative, and active interest are not developed when the teacher prescribes what shall be learned and dictates the procedure There are guidance techniques for doing the job Most of these techniques have to do with co-operative planning

In discussing the child's right to be different, Harold H Anderson offers this pertinent advice on the necessity of developing responsibility for behavior (40, pp 246–247)

The right to assert oneself carries with it the social necessity of being responsible for one's own decisions and for one's own conduct Obviously the child cannot develop responsibility where the teacher makes the decisions or where obedience has been commanded Obedience is not responsible behavior, it is merely conformity In fact, obedience as a habitual technic is the clearest evidence that the child has not developed responsibility for the behavior which the teacher regards as desirable There can be no responsibility in the child for his own behavior where he cannot himself help decide what this behavior shall be

Through informal discussion the teacher gains insight into background deficiencies and specific needs Through informal discussion the pupils learn to share experiences pertinent to the group interest, to communicate with each other in a desirable manner, and to respect the contributions of others. Hence, informal discussion and the organization of shared information—as a means of initiating a unit of activity—can be used to promote emotional and social adjustment.

Informal discussion can be used also to plan for the development of a unit of activity As problems or questions are stated, the pupils are motivated to purposeful activity. Textbook mastery and recitation are set aside as goals of learning when the pupils learn through experiences Children are given a new lease on school life that permits normal emotional and social adjustment. Teacher domination and the verbalism arising from memorization are superseded by group planning to meet personal needs

As a part of the socialized procedure, the pupils are guided in the location, selection, evaluation, and organization of information Pupils who would be frustrated because the typical reading materials for their grade are too difficult are guided into appropriate materials at a suitable level of reading difficulty. Others who would ordinarily be somewhat bored by the typical reading materials would be challenged with more difficult material Use is also made of learning aids other than reading. Special talents are discovered For example, Elsie is exceptionally good in art and is made chairman of the group to prepare the frieze or orange-box movie Harold is handy with a saw and hammer so he is chairman of the committee to build the

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call for sustained binocular effort. The writer agrees with Dr. J. F. Rogers who states (20, p. 7):

There is no excuse for a teacher not to know in a rough but sufficient way whether a child is handicapped by defective eyesight.

Binocular and Monocular Vision

Visual performance varies all the way from monocular (one-eyed) seeing to a high level of binocular (two-eyed) seeing. Some individuals go through life with one-eyed vision; others learn to ignore the vision of one eye after some degree of two-eyed vision has been acquired in order to achieve ocular comfort and more satisfactory visual efficiency Those with cross-eyes (internal strabismus, or squint) with wall-eyes (external strabismus, or squint) usually *suspend*, or give up completely, the vision in one eye. As a result the visual acuity (or clearness, or sharpness, of vision) in one eye usually is found to be very low. Then, again, there are individuals who use the eyes alternately for seeing purposes This condition is called alternating squint. While the vision in each eye may be satisfactory for seeing clearly, only one-eyed vision is present. In addition to one-eyed vision achieved by *suspending* the vision in one eye or by *alternating* from one eye to the other, there is the equivalent to one-eyed vision achieved when the individual *suppresses*, or ignores for a part of the time, the vision in one eye. This third type of one-eyed vision is often characterized by visual inefficiency and ocular discomfort. In short, there are many types and degrees of monocular, or one-eyed, vision.

Monocular Vision. The percentage of school children using monocular vision is low, perhaps under five per cent. While the school cannot justify attention to this type of problem on the basis of *frequency* of occurrence, the school must recognize the problem because it is a crucial one for a few individuals. First, one-eyed vision has educational implications. Individuals with this handicap do not get as many of the cues for depth perception as individuals with two eyes can get. That is, individuals with monocular vision can "see" height and width but they do not get the full concept of depth As a result, the viewing of stereoscopic, or third dimension, pictures provides no additional experiences beyond those that would be acquired by viewing a flat picture. Furthermore, their abilities to judge distance may be impaired. Second, individuals with one-eyed vision should be referred to a vision specialist Remarkable results in developing two-eyed vision have been achieved by some vision specialists through visual re-education (sometimes called exercises, or orthoptics). Rehabilitation of this type can be achieved only when a functional problem exists Since many parents do not know of this remedial possibility, it is the responsibility of the school to so inform them.

Fallacy of an "Either-or" Basis. School workers must not assume that a given individual has *either* monocular *or* binocular vision. Likewise, the assumption must not be made that an individual has *either* "good eyes" *or* "bad eyes." Things do not exist in life on an *either-or* basis. Vision ranges all the way from comfortable and efficient one-eyed seeing on the one hand to comfortable and efficient two-eyed seeing on the other hand. There are many types and "shades" of monocular and of binocular vision.

Binocular Vision. Individuals with binocular, or two-eyed, vision present a wide range of visual performance. Some can maintain single and clear vision for working periods of a reasonable time; others cannot. From recent studies by the writer and his associates, it appears that the "cannots" are in the majority, even in the elementary school. The "cannots" may report inability to see writing on the blackboard, seeing double (diplopia) at blackboard distance, blurred or

Every child should have a complete physical examination upon his entrance to school, and yearly thereafter, the record being kept and passed on with the child In addition, a campaign of education among parents should be made to care for the correction of defects Where economic limitations forbid, such defects should be corrected PROMPTLY by public agencies   A CO-OPERATIVE STUDY OF READING READINESS   Wisconsin Public Schools

Preview

In some books on hygiene and health, vision is discussed in terms of the structure of the eye This is worth-while information, but the school worker is concerned with functional problems of vision The teacher wants to know if the child is visually efficient Can he see clearly and distinctly at all working distances? Can he see singly at all working distances? Do the functions of seeing clearly and seeing singly have sufficient teamwork to enable the child to continue his seeing efforts efficiently and without discomfort? Is the child free from any disease of the eyes which would interfere with their normal functioning? If these questions can be answered in the affirmative, the teacher has a child who is probably visually ready for reading

This discussion is intended to give the nonspecialist in vision some background in this area, to describe types of vision problems that have been encountered, to sum up important educational and health implications of vision problems, to offer suggestions for the prevention of vision troubles, and to suggest techniques for detecting those children who require the immediate attention of a vision specialist.

No reasonable parent or educator would question the assumption that visual readiness for learning may be an important factor in a given situation. In some cases, inefficient vision may be a crucial factor contributing to learning handicaps. Not only must the reader be able to see at various distances, ranging from perhaps nine inches to twenty feet or farther, but also this seeing must be efficient. When visual inefficiency exists, it may be projected in the form of ocular discomfort or it may be manifested in an inability to see singly (i.e., seeing only one object when there is only one object, when using both eyes) and clearly at all necessary working distances

American schools have been referred to frequently as reading schools. In the typical classroom, reading activities require both near-point and far-point seeing responses. Furthermore, binocular (two-eyed) rather than monocular (one-eyed) responses usually are required. This has led many serious-minded students of the problem to emphasize the need for more attention to screening out and correcting binocular near-point seeing difficulties Reading activities usually

tained visual activity. The emphasis on seeing clearly, on seeing singly, and on maintenance of normal relationships between those functions that contribute to clearness and singleness is of recent origin. In the early 1930's this point of view was severely criticized, but now it is being accepted by leaders in optometry (9) and ophthalmology (16).

Visual inefficiency may cause difficulty with reading. On the other hand, too much near-point work, such as reading, and near-point work done under poor hygienic conditions may contribute to visual inefficiency. There is growing concern among vision specialists over the increase in visual inefficiency as children progress through the school. Many activities for primary-school children should be appraised on the assumption that they are visual hazards.

Basic Notions About Vision

Confused Thinking. Some of the false notions regarding vision and reading arise from confused assumptions. At one time, teachers were taught to believe that all visual handicaps could be corrected by means of glasses. This simple statement of the problem would be excellent if it were true. Functional difficulties are being corrected by up-to-date vision specialists by means of glasses, visual re-education (sometimes called orthoptics), or both. Furthermore, the general health status may require investigation. Other false notions were based on statements and diagrams of short and long eyeballs. For example, people were told that far-sightedness (hyperopia) was caused by a short eyeball, and that near-sightedness (myopia) was caused by an elongated eyeball. Such statements are now being vigorously challenged by vision specialists and it is interesting to note that the evidence to support these notions has not been published.

As evidenced by statements in magazine articles and research reports con-siderable confusion exists regarding the relationship between seeing and reading. Reading and seeing are somewhat similar in that both are primarily central processes. However, to attempt to predict reading ability on the basis of certain tests of seeing is quite beside the point. Such studies may indicate the relationship between these factors—reading and seeing—that exists for certain types of cross-sections of the general population, but the problem of visual *readiness* for near-point activities still remains to be studied. The investigation of *readiness* and the study of *abilities* require somewhat different approaches.

Need for Evidence. Among the reasons for a lack of readiness for reading, Dr. William H. Johnson cites (17, pp. 338-339):

Possibly the most common reason for the lack of maturity found in I C children (reading readiness group in first grade) lies in the physical or medical history of the child. Case histories indicate that records of contagious diseases, undernourishment, and physical defects affecting sight, hearing, and glandular development offer some explanation for the lack of readiness. Children who have had the advantage of nourishing food and orderly care with a record of minimum illness make up the great majority of those of average or superior attainments. . . Defects of sight and hearing are determined early, for they play an important part in producing lack of readiness to read. In many cases these defects accompany other factors, the combination tending to produce immaturity and to accentuate the difficulty.

In a study of the value of certain tests for predicting first-grade reading achievement, Charles D. Dean (13, pp. 609-616) obtained a correlation of .31 + .03 between visual efficiency, measured by means of the Betts Visual Sensation and Perception slides, and reading achievement. He concluded (13, pp. 611-612):

Lack of visual efficiency may be a serious drawback to children in their school work. Nervous instability, restlessness, headaches, or other results of visual deficiency may seriously hamper school progress in one way

doubling of the print in a book, pain from looking at normally bright lights, twitching of the eyelids or face muscles, nausea or dizziness from prolonged near-point activities such as reading, head-aches after reading or after a movie, general nervousness after sustained seeing activities, etc. On the other hand, some of the "cannots" solve their problems by unconsciously lowering their visual acuity (i e, clearness of vision), by turning one eye out of the visual act, or by rejection of uncomfortable seeing activities

In general, the individuals with binoc-ular vision are of three types: First, those who can see clearly out of each eye but who do not have sufficient teamwork between the eyes to see details quickly, clearly, and singly at certain working distances Second, those who have suf-ficient teamwork between the eyes to see clearly and singly at all working dis-tances but who are unable to "see" depth Third, those who have superior binocular vision and are able to judge depth with a reasonable degree of ac-curacy. The first two types of individuals may or may not be in need of glasses; nevertheless their lack of visual efficiency sooner or later is likely to cause them trouble Adequate binocular vision is learned, and other things being equal it can be developed through visual re-edu-cation. But that is the work of the spe-cialist in functional vision problems

In reality, the problems of binocular, or two-eyed, vision are becoming better understood by school workers and indus-trial management More attention is being given to visual *functions* than to the eyes as *structures* And, too, more emphasis is being placed on seeing as a *learned* act Some individuals *learn* to see and walk properly, others do not. The fact that an individual has two pairs of structures—such as legs or eyes—that are otherwise normal and healthy does not insure efficient functioning In brief, there is an increasing awareness in schools and in industry of the need for an

appraisal of visual *functions* in terms of the seeing task and of the possibilities for remedial training, or visual re-education.
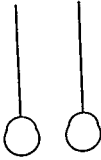
THREE FUNCTIONAL ASPECTS OF BINOCULAR VISION

In this discussion emphasis is placed on the functional aspects of vision. This is done because most of the visual prob-lems of school children are functional in character Those children with structural or pathological problems are in the minority. It is crucial, however, that children with pathology (such as in-flamed eyes, redness of the eyelids, etc) should be referred to a vision specialist. A paralysis of one or more of the muscles of the eye usually can be detected by means of functional tests of seeing.

The up-to-date specialist in vision is concerned with three functional aspects of seeing: *clearness of vision, singleness of vi-sion,* and *relationships between clearness and singleness of vision.* The child who cannot see clearly at a distance will not be able to read what is written on the black-board and the child who cannot see clearly at the near point will find the print in his book blurred. No one should question the wisdom of checking this factor of clearness. On the other hand, a child may be able to see clearly at all working distances but may experience difficulty in seeing singly. For example, the writer has worked with children who could not fixate both eyes on the bulb of a fountain-pen type of flashlight or on a piece of chalk closer than sixteen inches. That is, one eye would fixate and the companion eye would turn out when the target was brought nearer to them. No sensible person would question the desir-ability of checking this function of seeing singly at the near point (in this case read-ing distance) and referring cases in need of attention to a vision specialist. And again, some children may be able to see both clearly and singly for short periods of time but they may be unable to main-tain this level of two-eyed visual per-formance in situations requiring sus-
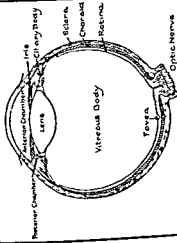
NATURE'S PLAN

The eyes evolved for distant vision—

Thousands of Foot Candles

THE DIFFERENCE

Posterior Chamber, Anterior Chamber, Iris, Ciliary Body, Sclera, Choroid, Retina, Cornea, Lens, Vitreous Body, Fovea, Optic Nerve

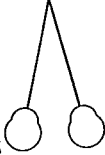The EYE is subject to strain that is borne by the workers at the expense of their well-being

Better Lighting relieves in part the strain on ocular muscles and fatigue resulting from man's departure from natural

Illumination Levels

MAN'S PLAN

The work-world demands concentrated near vision—

A Few Foot Candles

Nela Park, Cleveland, Ohio

Courtesy of M. Luckiesh

or another, but according to the present evidence, such defects, on the whole, do not impair reading efficiency at the first-grade level to the extent that prediction of success or failure can be based on the absence or the presence of such defects

One of the chief responsibilities of the vision specialist is to *prepare* an individual for sustained seeing activities Visual readiness for reading activities is only one factor in reading aptitude. As such, visual readiness can be greatly overemphasized, but in some cases it may be a *crucial* factor Visual readiness as only one factor contributing to reading *capacity* should not be confused with reading ability It is not within the professional province of the vision specialist to *teach* an individual to read; that is a pedagogical problem.

Visual Handicaps

Visual readiness for many learning activities may be achieved by means of either monocular or binocular vision. Those pupils who have achieved neither monocular nor binocular vision are the ones who often exhibit visual inefficiency and subsequent ocular discomfort. Moreover, not all learning problems can be laid at the door of faulty functional difficulties of vision It is quite generally admitted that monocular capacities for compensation allow some individuals to achieve at a given task in spite of handicaps such as functional vision difficulties For example, some near-sighted pupils are able to achieve up to the limits of their capacities without the benefit of vision needed for blackboard reading In this discussion, case studies are reviewed to show how individuals have been frustrated by their unanalyzed vision problems It would also be possible to summarize a large number of instances where the individuals have made satisfactory compensations for their visual handicaps This, however, would be a lame argument for the neglect of vision

The following case studies are reviewed to demonstrate the manner in which some individuals are handicapped in certain types of learning activities.

Double Vision. The tendency to see double sometimes continues undetected by the parents or teacher until the child is in serious trouble. Marie is a case in point. Upon entrance to the first grade, Marie demonstrated superior intelligence, excellent facility in the use of language, a wide background of information and superior social adjustment, but she did not like to attempt reading and when she did there was plenty of evidence of withdrawal reactions. Suspecting a visual handicap, the teacher administered the Snellen Chart tests and the Visual Sensation and Perception Tests of the *Betts Ready to Read* battery. Performance on the Snellen Chart tests was normal, on the Betts tests, only questionable. Although the teacher suspected a visual handicap that interfered with the reading process, the pupil had passed two school tests of vision in wide use.

A test was then made of Marie's ability to converge her eyes at reading distance and closer Marie was instructed to look at the lighted bulb of an Ever-Ready fountain pen flashlight (A piece of chalk, while a less satisfactory test target, could have been substituted) When the flashlight was held about eighteen inches from the eyes, the image of light (light reflex) could be seen in the center of each pupil and Marie reported seeing only one light The light was then moved very slowly and straight toward the bridge of the nose. When the light was moved to about fourteen inches from the bridge of her nose, only one eye fixed on it, while the other eye no longer continued to converge on it That is, the image of the light could be seen in the center of the pupil of the dominant eye (in this case, the right eye) and the image began to slip off the center of the pupil of the nondominant eye, toward the nasal side of the pupil In short, only one eye was fixing directly on the light. At this point, Marie reported seeing two

of screening out cases was the Snellen Chart test of distance vision. While the Snellen Chart test is still adequate for the one function of clearness of vision, the more recently developed tests go far beyond this one in detecting functional anomalies. When the Snellen Chart test was introduced into schools for *screening* purposes, there was some opposition from groups who believed that teachers and school nurses would be *diagnosing* visual problems. This situation, however, was straightened out to the satisfaction of interested groups, and children profited from the co-operation between vision specialists and the school. The problem was again raised during the 1930's when batteries of vision tests were developed for use by school doctors, nurses, teachers, and school psychologists. Thousands of school children as well as industrial workers are being referred to vision specialists of their own choice.

Co-operation Between Teachers and Specialists. One announced reason for discrediting newer devices for screening out visual problems was the fear that school workers would take it upon themselves to *diagnose* and possibly to *correct* visual difficulties. On the surface, this was absurd. Another reason advanced was that of inconsistency between the results of the school tests of vision and the specialist's findings. This reason was found by the writer to have some validity for two reasons: First, the tests were often administered improperly by teachers and others. This caused a few children to be referred for no good reason. Since all children should be checked annually by a vision specialist, no harm was done. The error was in the right direction. Several colleges and universities now offer special courses on vision testing for teachers so that this situation is being relieved. Second, the specialist's examination sometimes was not found to be as thorough for *diagnostic* purposes as the school tests were for *screening* purposes. Hence, the schools were *detecting* functional difficulties which some specialists

were not diagnosing! Too often in these situations, the teacher or school nurse was "talked down" by the specialist in self-defense, unless defended by a friendly specialist in the community. Fortunately, this situation is being rapidly corrected by the vision specialists themselves. The work of Dr A. M Skeffington and his associates of the Graduate Clinic Foundation in Optometry has received wide recognition not only by specialists in vision but also by educators and psychologists.

Modern tests of vision screen out individuals in need of glasses, of visual re-education, or of both The old notion that visual handicaps could be corrected adequately by glasses alone is being discarded. While not all vision specialists are equipped to deal with problems requiring visual re-education, the number is showing a sharp increase. School workers who braved the wrath of some vision specialists during the 1930's are not often faced with that problem today. Co-operation has superseded unintelligent antagonism on both sides.

Devices for Appraisal of Visual Efficiency. In general, three devices are used for the appraisal of visual efficiency in schools: the Inventory of Visual Symptoms; the Snellen Chart test; and the Visual Sensation and Perception tests of the *Betts Ready to Read* battery. All three of these means are used in some schools. In addition to these devices, some educational clinics and health departments in schools make use of informal techniques for the appraisal of visual functions similar to those used by specialists for diagnostic purposes.

INVENTORY OF VISUAL SYMPTOMS

An inexpensive, yet effective, means of detecting individuals in need of referral to a vision specialist is that of systematic observation and interrogation. After a school worker has made systematic use of an inventory of visual symptoms, the detection of symptoms becomes an incidental "everyday" occurrence. From an

Is He Visually Ready for Reading?

movie for two or three years because of headaches induced during the showing. The subject was comfortable only for distance seeing.

This case was referred to the Reading Clinic because the family vision specialist had been unable to detect anything wrong with her eyes. In this respect he was quite right because *the interference was not in the eyes,* but in the relationship which existed between accommodation (seeing clearly) and convergence (seeing singly). Furthermore, no discomfort was experienced for distance seeing; instead she presented a *functional disturbance in seeing at reading distance* that required treatment other than prescription for glasses.

Compensations

The human organism is highly versatile in making compensations for inade-

quacies. A socially maladjusted child may resort to excessive reading in order to withdraw from a situation for which he is inadequate. A normal or bright child may take pride in his ability to excel in arithmetic computation as a means of compensating for a reading disability. Many retarded readers make acceptable progress in college by being good listeners or by spending long tedious hours on their assignments. In like manner, compensations can be made for inefficient vision. Better lighting and other improved hygienic conditions may be used to enhance the possibilities of "staying" with a visual task. Many individuals give up their distance vision (called functional myopia) in order to adjust to the demands of near-point vision tasks; others will ignore the vision in one eye to overcome a tendency to see double. Still others "adjust" to their visual inefficiencies by a rejection of near-point activities that require sustained attention.

Teachers are becoming increasingly sensitive to the compensations that learners make in order to adjust to some school tasks. Wise teachers and vision specialists should confer on the vision problems of school children. Desirable compensation can be made by pupils when they are guided by teachers who act with the cooperation of vision specialists; undesirable compensation may be effected by the learner when adequate guidance is not forthcoming. For example, a pupil may be in need of better lighting conditions, larger size type in his books, more rest periods, shorter work periods, and so on. When these required conditions are not met, the pupil must seek adjustment by some other means.

Appraisal of Visual Efficiency

For use in schools and industry, *tests* and other devices have been developed for *detecting* or *screening* out individuals with visual problems requiring *diagnosis* and correction by a vision specialist. Until the early 1930's, the chief means

SNELLEN CHART TEST

Visual acuity, or minimum separable, is usually determined by means of a chart designed in 1862 by Professor H. Snellen of Utrecht. This chart, or modification of it, has become a standard for measuring visual acuity in doctors' offices, schools, and industry. For illiterates, children, and foreigners, the visual acuity is usually measured with the Snellen Symbol E, Seitz, Ewing, Franz, Cohn, McCallie, or Lowell's modification of the Snellen Letter Chart.

Types of Charts. Two types of charts were recommended by the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association: the Snellen Symbol E chart for illiterates (or for the testing of literates) and the Snellen Letter chart. These are abbreviations of the ones often employed by vision specialists. Each chart has eleven rows of targets ranging from the big E at the top of the chart, measuring 3.48 inches in height and width, to the smallest row of letters at the bottom of the chart, measuring .18 inches in height and width. Above each row of letters, the distance at which the targets should be read is indicated. Reading from top to bottom, the rows of targets should be read at the following distances (expressed in feet): 200, 100, 70, 60, 40, 30, 20, 15, and 10. These charts are all read with the examinee standing twenty feet from the chart. The line marked 20 can be read by an individual with normal vision. These charts can be obtained from the National Society for the Prevention of Blindness, 50 West 50th Street, New York, New York, at very small cost. Charts can be obtained singly at twenty-five cents each plus postage or both charts printed on a double-faced chart at thirty cents plus postage.

The letters on the Snellen Chart are square, each letter subtending an angle of 5° at the distance to be read. The square is five times the thickness of the lines of the letter. The width of each line subtends an angle of 1°.

Visual acuity findings are usually expressed by a fraction in which the numerator (d) indicates the distance of the subject from the target and the denominator (D) indicates the distance at which the targets should be identified. The formula reads:

$$V = \frac{d}{D}$$

For example, an individual reading all the targets on the 20-foot line at a distance of 20 feet receives a score of 20/20; and a subject who can recognize the letters on the 70-foot line, a score of 20/70

Cases are usually referred to a vision specialist under two conditions:

1 If they are unable to identify the letters on the 20/20 line at twenty feet. Each eye should have 20/20 V. A

2 If they can read the letters on the 20/15 or 20/10 line at twenty feet, when there are symptoms of visual inefficiency.

When to Refer. Anything less than 20/20 vision should be referred. The vision specialist rather than the school worker should make decisions regarding questionable cases. Recently a boy was admitted to the writer's reading clinic who was a victim of a school worker's false notions regarding visual needs. When Robert was tested in first grade, his vision in the right eye was 20/20 and in the left eye 20/30. His vision test in second grade revealed 20/20 vision in the right eye and 20/50 in the left. The third year, his vision had dropped to 20/70 in the left eye. These findings were a matter of record. Quite by accident the father discovered that Robert was rapidly losing the vision in his left eye. The school nurse insisted that no referral should be made unless the visual acuity in *both* eyes was below 20/20. Such situations are disturbing and cause parents to lose faith in the school health service. While wise parents should take the responsibility for an annual

investigation by Betts and Austin (9), it was learned that this can be a highly valid means of referral when the specialist makes a *complete* visual analysis. Not all of the cases referred on this basis, however, will be in need of glasses, some will require visual re-education

The following *Observation of Visual and Ocular Symptoms* is a useful inventory for detecting pathology, or diseases, and functional visual problems The first three items may be characteristic of a pathological condition called *blepharitis;* items 4, 5, and 6 of a condition called *conjunctivitis* Item 7, cloudiness, may be an indication of corneal opacity Most of the other items are used to indicate functional difficulties of vision that may or may not have a pathological basis. To be on the safe side of the question, the school worker should follow the rule: "When in doubt, refer"

OBSERVATION OF VISUAL AND OCULAR SYMPTOMS

1 Reddening and thickening of margins of lids
2 Scales and crusts on lids
3 Loss of eyelashes
4 Tearing (or watering) of the eyes
5 Inflammation or reddening of the eyes
6 Discharge around eyes
7 Cloudiness of pupil
8 Drooping of upper lid
9 Widely dilated pupils
10 Difference in size of pupils
11 Deviation of one eye
12 Forward thrusting of head
13 Tilting of head
14 Facial contortions, such as puckering face, frowning, scowling
15 Continual rubbing of eyes
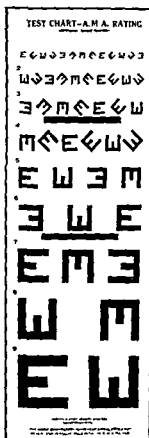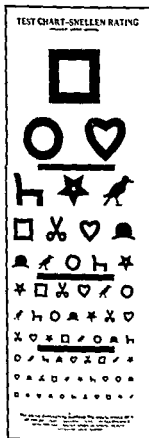16 Excessive blinking
17 Excessive head movement while reading

When an individual becomes aware of improperly functioning eyes, visual efficiency is automatically reduced. While symptoms of visual inefficiency—reflected, for example, in ocular discomfort—may not be verified on a Snellen Chart test, they usually are validated by means of a complete visual analysis. Here again, not all functional difficulties are corrected by means of glasses alone; some must be corrected through visual re-education. Since investigations by the writer, his students, and co-operating vision specialists have indicated clearly the need for functional testing, the emphasis is placed on this phase of the problem.

The following questionnaire on *Awareness of Visual Symptoms* is used largely for detecting functional difficulties requiring referral to a specialist at the earliest possible date.

AWARENESS OF VISUAL SYMPTOMS

I. Do you ever see double when looking at the blackboard?
II. Can you see clearly what is written on the blackboard?
III Do you ever see double when looking at or reading a book?
IV. Can you see clearly the print in your books?
V. Do your eyes tire when you read?
VI. Do you shade your eyes when you read?
VII. Do you ever cover one eye with your hand or a card when you read?
VIII Do the lights at home or at school hurt your eyes?
IX. Does sunlight ever hurt your eyes?
X. Do you have headaches
   A. After a movie?
   B. After reading?
XI. Do your eyes
   A. Twitch?
   B. Itch?
   C. Burn?
   D Tear, or water?
   E. Become inflamed (or red)?
XII. Do you ever have sties?
XIII. Do you ever become dizzy
   A. After a movie?
   B. After reading?
XIV. Do you ever see spots before your eyes?

Courtesy of Bausch and Lomb Optical Company   Rochester, N.Y.

clean so that the contrast between the letters and background is sharp.

5. *Glasses.* It is well to give the tests with and without glasses. A colored pencil can be used to record the readings taken with the child wearing correction.

6. *Occlusion.* Readings should be taken for each eye with the other eye covered (occluded). The habit of testing the right eye first should be established. A small piece of gray cardboard about 3x5 inches makes a satisfactory occluder because it permits the child to keep both eyes open for the test even though he is using only one to read the test chart. The card should be held obliquely against the nose so that the one eye is occluded without having any part of the card projecting into the line of vision of the eye under test.

7. *Binocular Visual Acuity.* A record should be kept of the child's binocular, or two-eyed, responses, since that is the way the normal child reads. This record should be taken after each eye has been tested independently. Most individuals may be expected to have higher binocular visual acuity than monocular visual acuity.

8. *Large Symbols First.* The testing should begin with the identification of the largest symbols at the top of the chart. The symbols on each line should be read at the usual reading rate and without loitering. If there is evidence that the examinee has memorized the symbols,
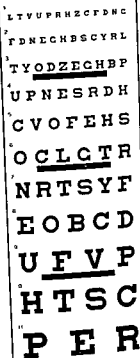
TEST CHART SNELLEN RATING

TEST CHART-SNELLEN RATING

TEST CHART A M A RATING

Courtesy of Bausch and Lomb Optical Company

Rochester, N Y

visual analysis, it is also the responsibility of school workers to point out this need and to refer all children in need of immediate attention

Procedures with Snellen Charts. The following conditions should be observed for the administration of the Snellen Chart visual acuity tests

1. *Rapport* One of the first procedures in administering any test is to establish co-operative relationships with the examinee For younger children, the test can be described as a game It is just as well not to mention the fact that the examiner is testing vision

2. *Chart Level* The 20/20 line of the chart should be adjusted to the level of the eyes of the examinee

3. *Chart Distance.* The child should be exactly 20 feet from the chart. If a child cannot see the big E at the top of the chart, he should be allowed to move toward the chart until he can. In this case the distance of the examinee from the chart is recorded as the numerator of the visual acuity finding. For example, if the child must move up to 12 feet from the chart in order to read the large E which is seen at 200 feet by an individual with normal vision, then the visual acuity is recorded as 12/200.

4. *Illumination* The chart should be uniformly illuminated with at least ten foot candles of artificial light. Excessive glare and shadows should be avoided Care should be exercised to keep the chart

along with the visual acuity finding. For example, a child making two errors on the 20/20 line would have his vision recorded as 20/20—2.

The percentage equivalents of the Snellen fraction, approved by the American Medical Association, are indicated in the following table:

Snellen Fraction	Visual Efficiency
20/20	100 0%
20/30	91.5
20/40	83 6
20/50	76.5
20/70	64.0
20/100	48.9
20/200	20 0

A diagnosis of the type of visual handicap is not within the teacher's professional province. Furthermore, Snellen Chart findings alone do not permit a specialist to diagnose the difficulty. For example, inability to read the 20/20 line may be caused by nearsightedness, astigmatism, or a high degree of farsightedness. Screening tests are used to refer cases needing attention to a vision specialist; they are not used for diagnostic purposes.

12. *Visual Acuity at Reading Distance.* An up-to-date specialist in vision finds it necessary to appraise visual acuity at reading distance as well as at twenty feet. Likewise, the testing of vision in many schools, industries, and reading clinics includes a check at the near point. This can be done by means of a reduced Snellen Chart, using the same procedures employed for administering the distance Snellen Chart test. The A. M. A. reading chart is also acceptable for this purpose.

VISUAL SENSATION AND PERCEPTION TESTS OF THE BETTS READY TO READ BATTERY

Under normal conditions the mind demands clearness and singleness of visual impressions. The Visual Sensation and Perception Tests of the *Betts Ready to Read* battery were developed to detect certain functional anomalies which may interfere with the sensory and perceptual processes required to achieve singleness and clearness of vision. These tests of the *Betts Ready to Read* battery were developed neither to *measure* reading ability nor to *diagnose* faulty seeing habits; instead, they were constructed to provide an abbreviated means of detecting binocular (two-eyed) disturbances which may contribute to visual inefficiency that is sometimes reflected in ocular discomfort and faulty oculomotor control. In short, they were developed on the basic assumption that most individuals have a *pair* of eyes and therefore present binocular rather than monocular problems. Data have been reported elsewhere by the writer to the effect that faulty habits of seeing contribute to undesirable performance in reading activities in at least two ways First, ocular discomfort may cause certain individuals to shun nearpoint activities, such as reading, sewing, etc. Second, functional anomalies may influence significantly the efficiency of binocular performance. In addition, it is obvious that a myopic (nearsighted) individual may be unable to see clearly enough to read from the blackboard. Fortunately, however, it appears that many individuals can compensate for certain handicaps as long as their general psychological and physiological status remains fairly normal.

Description of Betts Ready to Read Tests. The Visual Sensation and Perception Tests of the *Betts Ready to Read* battery are a set of ten tests mounted on stereoscopic slides and viewed through a modified stereoscope, called a Telebinocular. Since they were made available in 1934, they have been adopted for use in both schools and industry. They are sometimes used in conjunction with the Snellen Chart test. It must be remembered that the Snellen Chart test was designed to do one job; namely, to appraise clearness of vision at twenty feet. The Betts tests of vision were designed to test certain functional aspects of

vision, namely, clearness of vision, single-
ness of vision, and relationships between
clearness and singleness As a result,
*more types of functional difficulties will
be found by means of the Betts tests than
by means of the Snellen Chart test, and
more cases will be referred*

I *Basic Tests* The ten tests of the
basic Betts battery are given in the fol-
lowing order

Test 1 Introductory Slide

The chief purposes of this test are to in-
terest small children and to indicate whether
the examinee has binocular (two-eyed) vision
If binocular vision is not present, then the
examinee should be referred In this case, the
succeeding tests of binocular vision—with the
exceptions of Test 3b or and Test 8—
cannot be administered A lack of binocu-
lar vision can be verified by means of Test 2
and / or Test 7

Test 2 Distance Fusion

*The chief purpose of this test is to appraise
singleness of vision for distance seeing*

Test 3a Binocular Visual Efficiency

The chief purpose of this test is to appraise
clearness of vision at distance when both eyes
are being stimulated by similar targets

Test 3b Left-eye Visual Efficiency

*The chief purpose of this test is to appraise
clearness of vision of the left eye while
both eyes are functioning in unison* Individ-
uals who tend to suppress, or ignore, the
vision in one eye will make a lower score on
this test than they will make when the right
eye is occluded, or covered In brief, the visual
efficiency of one eye is appraised while both
eyes are seeing

Test 3c Right-eye Visual Efficiency

The chief purpose of this test is to appraise
clearness of vision of the right eye under
the same conditions obtained for checking
the left-eye efficiency.

Test 5 Depth Perception

The chief purpose of this test is to appraise
one of the highest levels of visual perform-
ance; namely, the perception of depth
Some individuals may have otherwise nor-
mal visual functions but still be unable to
perceive depth Other conditions being nor-
mal, inability to perceive depth *can be cor-
rected by means of glasses and/or visual re-
education*

Test 6 Lateral Balance, or Posture

The chief purpose of this test is to appraise
the tendency of the two eyes to remain
parallel for distance seeing and to converge,
or turn in, for seeing at reading distance In a
sense, this test provides an index to the rela-
tionship between seeing singly and seeing
clearly

Test 7 Reading Distance Fusion

*The chief purpose of this test is to appraise
singleness of vision for seeing at reading dis-
tance*

Test 8 Sharpness of Image

*The chief purpose of this test is to appraise
clearness of vision through six principal merid-
ians of each eye*

The tests used in the Telebinocular are
parallels to those used in an up-to-date
specialist's office While they are not used
in schools for diagnostic purposes, they
*are sufficiently valid and reliable for
screening purposes.* The modern special-
ist has improved his diagnostic routine
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not be embarrassed by screening out
functional difficulties that will not be
studied in the doctor's office.

II. *Advantages* The Betts tests have cer-
tain advantages worth noting:

can be done in a minimum of space. A small school desk is large enough to accommodate the instrument and the test slides.

D. The basic t sts can be administered in five to ten minutes.

III. *Limitations.* Since no one set of tests devised to date has proved to be ideal, the Betts tests have certain limitations:

A. While the tests do parallel those given in many doctors' offices, they are given under artificial seeing conditions.

B. For the most part, the tests are administered while the examinee is looking straight ahead without moving his eyes. In this sense, they are static rather than dynamic tests.

C. Some individuals may make acceptable scores on the Betts tests without normal visual functions. In the writer's clinic, these tests are supplemented by means of other easily administered tests of crucial functions. Not all of the visual functions may be appraised by means of a modified stereoscope.

D. To make maximum use of the tests and to know what complementary tests should be given, the examiner should have at least a course on the use of screening tests for vision This makes it possible for the examiner to refer or not to refer on the basis of the total series of tests rather than on single test responses

E. Since not all doctors make a complete analysis of visual functions, some children may be referred without verification in the doctor's office. (The so-called referral error, however, is in the right direction.)

INFORMAL TEST PROCEDURES

The Snellen Chart is an excellent means of measuring one-eyed visual acuity at distance. By this means about twenty-five per cent of elementary-school children will be referred. This percentage, however, does not include those with binocular vision problems at distance nor those with visual acuity or binocular vision problems at closer

"HOW ARE MY VISUAL SKILLS?"

Public Schools   South Bend, Ind.

vision; namely, clearness of vision, single-
ness of vision, and relationships between
clearness and singleness. As a result,
more types of functional difficulties will
be found by means of the Betts tests than
by means of the Snellen Chart test, and
more cases will be referred.

I Basic Tests The ten tests of the
basic Betts battery are given in the fol-
lowing order

Test 1 Introductory Slide

The chief purposes of this test are to in-
terest small children and to indicate whether
the examinee has binocular (two-eyed) vision
If binocular vision is not present, then the
examinee should be referred In this case, the
succeeding tests of binocular vision—with the
exceptions of Test 3b or 3c and Test 8—
cannot be administered A lack of binocu-
lar vision can be verified by means of Test 2
and / or Test 7

Test 2 Distance Fusion

The chief purpose of this test is to appraise
singleness of vision for distance seeing

Test 3a Binocular Visual Efficiency

The chief purpose of this test is to appraise
clearness of vision at distance when both eyes
are being stimulated by similar targets

Test 3b Left-eye Visual Efficiency

The chief purpose of this test is to appraise
clearness of vision of the left eye while
both eyes are functioning in unison Individ-
uals who tend to suppress, or ignore, the
vision in one eye will make a lower score on
this test than they will make when the right
eye is occluded, or covered In brief, the visual
efficiency of one eye is appraised while both
eyes are seeing

Test 3c Right-eye Visual Efficiency

The chief purpose of this test is to appraise
clearness of vision of the right eye under
the same conditions obtained for occluding
the left eye (Test 3b)

Test 4 Vertical Balance, or Posture

The chief purpose of this test is to appraise
at both distance and near-point the tendency
of the eyes to remain in the same horizontal
plane When the eyes function improperly,
one eye may tend to deviate upward or down-
ward (called a vertical imbalance)

Test 5. Depth Perception

The chief purpose of this test is to appraise
one of the highest levels of visual perform-
ance, namely, the perception of depth
Some individuals may have otherwise nor-
mal visual functions but still be unable to
perceive depth. Other conditions being nor-
mal, inability to perceive depth can be cor-
rected by means of glasses and/or visual re-
education

Test 6. Lateral Balance, or Posture

The chief purpose of this test is to appraise
the tendency of the two eyes to remain
parallel for distance seeing and to converge,
or turn in, for seeing at reading distance. In a
sense, this test provides an index to the rela-
tionship between seeing singly and seeing
clearly

Test 7 Reading Distance Fusion

The chief purpose of this test is to appraise
singleness of vision for seeing at reading dis-
tance

Test 8. Sharpness of Image

The chief purpose of this test is to appraise
clearness of vision through six principal merid-
ians of each eye

The tests used in the Telebinocular are
parallels to those used in an up-to-date
specialist's office. While they are not used
in schools for diagnostic purposes, they
are sufficiently valid and reliable for
screening purposes. The modern special-
ist has improved his diagnostic routine
since these tests were first published, so
that the users in most communities will
not be embarrassed by screening out
functional difficulties that will not be
studied in the doctor's office.

II. Advantages. The Betts tests have cer-
tain advantages worth noting"

A. Indexes to clearness of vision,
singleness of vision, and to certain
relationships between the functions
of singleness and clearness can be ob-
tained

B When reasonable caution is exercised
in the exclusion of other reflecting light,
the tests can be administered under con-
trolled lighting conditions

C. Both distance and near-point testing

1. Hold the lighted flashlight vertically about eighteen inches from the eyes of the examinee and say, "Look at the light."

2. Note the light reflex in the center of each pupil of the examinee. If only one eye is fixing on the light, then the other is turned in or out. This indicates the use of one eye at near point and should be referred. If the examiner can see the light reflex in the pupil of each eye, then he can proceed.

3. Instruct the examinee to keep looking at the light as it is moved slowly straight in to the bridge of the nose. Many children will be able to follow the light to the bridge of the nose with *both* eyes. The examiner observes the light reflex in the center of each pupil. When the light reflex is seen to move off the center—to the right or left and sometimes up or down—the examinee is no longer maintaining fixation with both eyes. Usually one eye will tend to turn out while the other eye maintains fixation. *The examinee should be able to maintain fixation with both eyes to within two inches of the nose.* If he cannot, he should be referred to a specialist. Failure on this test often requires visual re-education.

When binocular fixation begins to break the examinee should see double. This, however, should be checked by a specialist.

4. After some experience has been gained, the examiner may wish to make refinements in what is recorded. In the writer's clinic, data are obtained and recorded through the use of these questions:

Was fixation maintained with the right or left eye?

Up to what distance from the bridge of the nose was fixation maintained?

Did the pupils contract in size as convergence was increased?

Was double vision (diplopia) reported at the point where binocular fixation was lost?

Near and far visual acuity tests and the near point of convergence test should be used as the very minimum routine for all school children When these three findings are taken, approximately thirty-six per cent of the elementary-school population will be referred to a specialist. Observations and reported symptoms will add to this figure at least another ten per cent. It should be kept in mind, however, that not all of these referrals will be in need of glasses, some will require visual re-education.

Ocular Motility Another type of informal test is that which appraises the freedom of the movement of the eyes. Approximately five per cent of the elementary-school population do not have acceptable ocular motility This test is made for each eye separately (i e , with one eye covered) and for both eyes. A piece of white chalk or a fountain-pen flashlight can be used as the target. The examinee is instructed to fixate on the target—held about eighteen inches from the eyes—as it is moved very slowly in circular fashion. The examiner moves the target so as to require the examinee to rotate the eyes slowly around a 360-degree circle. After each eye is tested, then both eyes are tested.

In some cases, the eye will make little jerky or throbbing movements. In a few cases, the individual may be able to rotate each eye separately but when both eyes are tested only one eye will follow all the way around. In unusual cases, little or no motility can be observed. These are obviously cases that should be referred to a specialist for diagnosis and correction. Specialists in functional vision problems co-operating with the writer's clinic have been very successful with their treatment of these cases when complete paralysis was not found.

Near Point of Focus. A third type of informal test involves the appraisal of the ability to focus. (The test is called amplitude of accommodation by specialists.) A reduced Snellen chart or small print may be used as a target. The eye not

working distances While the Betts tests also are widely used, they also leave many things to be desired The vision specialist is confronted with like problems In order to make other desirable tests, both the Snellen test and the Betts tests must be complemented by other somewhat informal tests

All mechanical-test results should be buttressed by systematic observations of visual performance and by systematic questioning While the doctor is not in a situation that makes possible the extensive observations that a teacher can make, he often does have his patient read briefly or perform other near-point tasks under observation Systematic questioning for the case history is done in the doctor's office and is being employed by more school workers than formerly

Informal testing procedures have the advantage of costing little or nothing, but they require more training and background of the examiner than the use of more mechanical testing procedures This is also true of reading readiness and reading Very little training is required *to administer a reading-readiness test*

or a reading test, but quite often more can be learned about reading needs by systematic observation and questioning of the examinee in a reading-readiness or a reading situation. Only three of many informal testing procedures for appraising functional vision problems are described in the following discussion:

Near Point of Convergence. An individual may pass the Snellen and Betts tests and still be unable to maintain singleness and clearness of vision for prolonged periods of time at the near point. This function can be appraised by means of a very simple test.
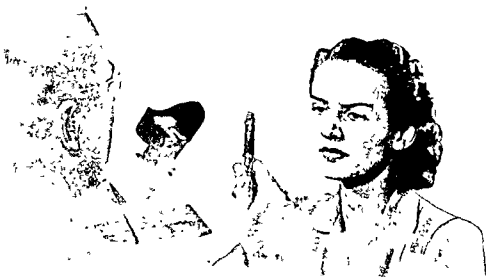
A piece of white chalk may be used as the test target, but better still is the lighted bulb of an Ever-Ready fountain pen flashlight. This specific type of flashlight is recommended because the tip of the bulb extends beyond the casing and, therefore, makes it possible to test without flooding the eyes with an excessive amount of unnecessary light.

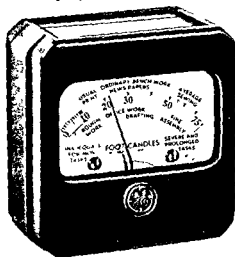*The steps in making this test may be briefly enumerated as follows:*

Reading Analysis Division　　　　　　　　　　　　　　　*Pennsylvania State College*

checked by means of a very simple light meter. Where one is not available through the school, steps should be taken to solicit the co-operation of the local light company.

A DEVICE FOR MEASURING LIGHT

M. Luckiesh,   *Nela Park, Cleveland, Ohio*
Frank K. Moss

5. Artificial light should be diffused. The light from an unscreened light bulb of high intensity should be avoided.

6. Glare on the surface of desks and tables should be reduced to a minimum. Glass and highly varnished or polished surfaces are the chief sources of glare in a classroom.

7. Bookshelves, bulletin boards, display cases and the like should not be built on the window side of the room. Increased traffic on the window side of the room produces more shadows. Furthermore, bulletin boards and book shelves will be better lighted if placed away from the window side of the room.

8. Class discussions of good lighting for work conditions should be arranged. Parents often complain of the strange postures assumed by children at home for reading, art work, and other near-point activities. Well-directed class discussions on this problem usually bear fruit at home as well as at school.

Reduction of Near-point Seeing Load. Prevention of visual difficulties can be approached by reducing the near-point seeing load as well as by observing hygienic standards. First, reading should be viewed as only one aid to learning. The use of large pictures (sometimes projected through a stereopticon or a reflectoscope), movies, class discussions, and the like can be used to reduce the reading load and to give a better proportion to each of the learning aids. Second, experience records, or charts, have additional justification from the point of view of vision. When adequate mechanical specifications are observed, these reading materials printed in large-sized letters and read at a distance beyond two or three feet reduce the near-point seeing load. All teachers should know something of what is required of the unpracticed reader in order to adjust to the seeing situation in even a pre-primer. This is a task requiring a high degree of visual skill. Third, stereoscopic, or third-dimension, pictures viewed through a stereoscope by children with two-eyed vision is a means of "relaxation" as well as a means of building background of experience. This type of activity should find a larger place in school programs. Fourth, care should be exercised in the selection of instructional materials that meet high standards of hygienic requirements. Highly glazed paper produces harmful glare. Paper that is too thin or insufficiently opaque reduces the legibility, or readability, of the print. Educators should take the lead in co-operating with vision specialists to reappraise the school program with a view to preventing visual difficulties. Otherwise much effort justifiably expended will lose its value.

Hygienic Conditions. For the most part, the problem of hygienic vision conditions lies directly in the hands of the teacher. It is generally believed that some visual problems can be reduced and prevented by giving attention to adequate lighting conditions. Here are a few suggestions:

under test is covered. The target is held about twelve inches from the eye and is slowly moved in until the print blurs. Some examiners move the target toward the eye and past the blur point, then move the target away from the eye until the print is readable (i.e., no longer blurred). The near point of focus (i.e., the closest distance to the eye at which the targets do not blur) for most elementary-school children is in the neighborhood of 3 inches. Those with a near point more than about 3½ inches should be referred.

Teacher Responsibilities

Teacher responsibilities toward safeguarding vision are of a dual nature: prevention, and referral for correction. Not the lesser of these two responsibilities is that of prevention.

PREVENTION

The increase in the percentage of referrable visual difficulties as children progress through the school is challenging the best efforts of both educators and vision specialists. More and more attention is being given to researches that point the way to preventive measures. Hence the educator has two important contacts with vision specialists: one involving procedures and devices for screening out those pupils who should be referred for correction and expert guidance; the other involving procedures for preventing reading difficulties. The emphasis is being gradually shifted from correction to prevention.

Until there is scientific evidence to the contrary, educators should take steps to provide learning conditions that meet high standards of hygiene and to reduce the near-point seeing activities of pupils, especially in the primary grades. Every teacher should make use of the findings on school lighting that are summarized in an extensive literature on the subject. Furthermore, each teacher needs to sensitize her pupils to the necessity of adequate lighting for all seeing activities, including reading. This instruction should be initiated when the child first comes to school and should be continued throughout the child's school career. The kindergarten period is not too soon to begin. Where adequate lighting is not possible, poor conditions can be improved by the adjustment of the window shades and by proper seating to provide maximum lighting without glare. In some classrooms, children are required to engage in sustained reading activities while seated in a semicircle, which requires some children to face direct light from a window. Sometimes this is done in the name of modern education. Progressive and alert teachers recognize the needs of the whole child and guard against such errors.

Light in the Classroom. Suggestions regarding classroom lighting conditions include the following:

1. Pupil desks should be arranged so that no child works in his own shadow. Right-handed individuals should have windows to the left; left-handed individuals, to the right.

2. Neither teacher nor pupils should be required to face the light. The teacher should avoid conducting a class activity with her back to the window side of the room. Furthermore, care should be exercised in the arrangement of seats in the room so that no pupil faces the direct light from a window.

3. Maximum use should be made of daylight by proper and periodic adjustment of shades. Single shades should be replaced with the type that is secured at the center of the window. This makes it possible to adjust the shades to admit the light from the top or bottom halves of the window as needed.

4. When daylight is insufficient (i.e., fifteen to twenty-five foot candles), adequate artificial light should be made available. Since power should not be wasted, maximum use should be made first of daylight. Illumination can be

gation to her pupils of mastering some simple techniques for screening out those children in need of referral to a vision specialist. This includes observations and the use of standardized and informal screening tests designed for school use. Observation and informal techniques described herein will go a long way toward detecting children in need of referral. Directions for administration are included with instruments designed for screening purposes. *Eyes* should be under constant observation; *vision* should be checked as thoroughly as possible once each year.

All children complaining of eye difficulties should be referred; for instance, those with red and scaly eyelids and with "bloodshot" eyes. In addition, the teacher will be able to detect by observation those who complain of headaches and eye aches, inability to read the blackboard, and so on. It is much better to refer and err in a few cases than not to have referred those who need it. *All school children should be checked by a vision specialist once each year.*

Place of Vision in School Health Program. Not only should the educational program of the school be appraised for its heavy demands on vision but also the health program of the school should be assessed. Herein lies a dual problem. First, the nature of the vision testing program is in need of careful study in many school situations. The types of tests employed, the frequency of vision surveys, and the efficiency of the examiners contribute directly to the extent to which pathological ocular conditions and functional difficulties are identified in their initial stages for referral to a specialist. If clearness of vision for *distance* seeing only is appraised by means of the well-known Snellen Chart test, then considerably less than one half of the pupils in need of help will be referred. Those visual *functions* having to do with clearness of vision at near points and with singleness of vision at crucial working distances will have been neglected. In some

schools, not even the Snellen Chart test of vision is administered once each year. Furthermore, the unsatisfactory conditions under which the Snellen Chart test sometimes is given rule out pupils in need of referral. In one situation investigated by the writer, fewer than five per cent of the children were being referred on the basis of the Snellen Chart test when it was found by means of a more nearly comprehensive test battery —*verified by a visual analysis made by a reputable specialist*—that more than fifty per cent should have been referred. Situations of this type are serious indictments of the safeguards of the precious sight of children. However, this should not be construed as a criticism of the Snellen Chart test. This test was designed to do one job: to appraise visual acuity at twenty feet, under desirable test conditions. Parents, educators, school psychologists, and health officers are beginning to evidence increased interest in appraising the nature and adequacy of the vision-testing program.

The other half of this dual problem of assessing the school-health program lies in the follow-up program. It is not enough to test and report the results to the parents. When tests indicate that a child is in need of the help and guidance of a vision specialist, then results should be achieved. It is not a matter of parent co-operation with the school; rather the problem is one of parent-teacher provision for child needs. Request of correction of a visual handicap should not be made on the basis that the teacher or health officer wants it but on the basis that the child *needs it for* efficiency in school now and for efficiency in his vocation. So far as the writer is aware, there is no reason for a child in these United States to continue through life with a visual problem that can be corrected. When inoculations and vaccinations are *required* for admission to school, the problem is solved by action. When the problem is understood by parents, they usually concern themselves with the need.

1 Window curtains should be adjusted so that the room is uniformly lighted without glare from direct sunlight. Since lighting conditions vary with the time of day and the weather, readjustment of curtains will be necessary at certain times of the day Pupil monitors for such duties can be used so that all the children become light conscious.

2 Where the fenestration, or proportioning of windows, is not adequate this fact should be called to the attention of the school authorities Systems of artificial lighting have been designed to insure a minimum of fifteen to twenty-five foot candles of light

3 Children having difficulty with distance vision should be seated in the front of the room

4 Children who experience difficulty in seeing clearly or singly at reading distance should be given books printed in large type Some widely used school books are printed in sight-saving type by the Clear Type Publishing Committee, 36 Elston Road, Upper Montclair, New Jersey Leading manufacturers of typewriters have developed machines for school use with Jumbo or Sight-saver type

Rest Periods Some children require more rest than others do Especially is this true of those pupils engaging in prolonged near-point activities Art activities with large materials, dramatizations, music activities and the like can be worked into the daily program to provide variety in vision activities as well as in learning situations

Variety of Learning Aids In well-organized classrooms, use is made of direct participation (i e , doing), observations during excursions and demonstrations, movies, slides, stereoscopic (or third-dimension) pictures, models, and class discussions, as well as of the reading of maps, charts, diagrams, and books. In a modern classroom, reading, therefore, should not be given disproportionate emphasis Use should be made of a bal-

anced program of learning activities that reduces the actual reading load and at the same time results in broad development that makes the reading more meaningful.

Attention to Needs of Whole Child. There appears to be general agreement that educators must concern themselves with the physical as well as with the mental health of the child. With the acceptance of this point of view, the responsibilities of the teacher are extended. Since vision is one of the crucial avenues of learning in most schools, the teacher has definite obligations to be better informed than the average layman is on general vision problems.

The school doctor or the school nurse should be one of the chief allies of the teacher. Service in this area for schools is being improved, but most workers rendering health inspection service in schools are overworked with the result that adequate examinations are not made. The teacher is with the children every day and is, therefore, in a strategic position to detect problems that should be referred to the health department, the family physician, or the family specialist. Where little or no health service is available, the teacher becomes the school health officer of first rank and must do the job with the co-operation of parents and family consultants.

REFERRALS

Where health service is available, the teacher should co-operate by following up on the recommendations made by the physician. A high socioeconomic status of the parents is no safeguard to the child's health For the most part, parents do not *intend* to ignore school recommendations regarding such matters as visual handicaps; they just put off attending to them. This means that every teacher must know enough about such items as vision to be able to interpret the recommendations to parents

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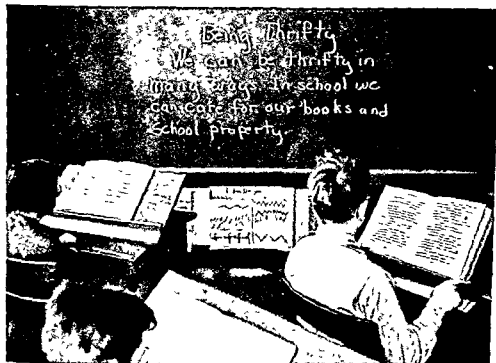
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Public Schools　　　LARGE TYPE IS USED IN SIGHT-SAVING BOOKS　　　*Ithaca, N.Y.*

classes usually can be secured by writing to the state department of education. In small communities where there are not enough pupils to organize a sight-saving class, the teacher must make use of sight-saving materials in the regular classroom.

STIMULATE INTEREST IN VISION

Hygiene and health—both mental and physical—are substantial elements in the modern school program. At one time the mistake was made of attempting to teach health through a textbook and setting-up exercises. Nowadays health is something to be lived in and out of the classroom. It behooves the teacher, therefore, to cause pupils and parents to become both eye and vision conscious.

Interest in vision can be stimulated by explaining to both parents and pupils the findings taken on the school survey tests. Furthermore, an effort should be made to inform them regarding the different types of services available. The purposes served by glasses, the value of visual re-education, and the need of a healthy body for normal functioning eyes can be described in nontechnical language.

Parent Responsibilities

Educational programs are sponsored by the state. Increasing responsibilities are being assumed by the state for the health of individuals. With the exception of sight-saving classes, however, very little provision has been made by the state for the care of visual difficulties. Even in the case of sight-saving classes, it will be noted that the problem has been met "after the horse was stolen." Techniques and devices for screening out

Fortunately needs can be demonstrated by means of school tests of vision. Parents do not consciously sabotage their children's opportunities for better school adjustment and subsequent vocational success. The test follow-up must be based on parental understanding of needs.

In some communities, administrative officers, supervisors, teachers, and school psychologists have demonstrated the value of co-operation between specialists and educators. For example, D. B. Timmons (21) reports that the Visual Sensation and Perception tests of the Betts battery were brought to a round table of all the vision specialists in his community in order to come to some common understanding regarding the use and interpretation of the results. He summarized the value of this procedure by stating "Due to the patience and co-operation of these physicians, the annual reports of the school program show that the doctors agree that between 95 and 97% of the school referrals are correct." Co-operation appears to be the key to success.

SIGHT-SAVING CLASSES

Most states make fairly adequate provision for children who are educationally handicapped by defective vision. This is usually done through special schools, special classes, or special provisions within regular classes. The extent of the handicap, local facilities, and the needs of the child dictate the type of provision made.

Pupil Classification. Most children with 20/70 or better vision can profit from regular classroom instruction. Children with less than 20/20 vision should be seated in the front of the classroom. Measures should be taken to insure desirable hygienic seeing conditions in all classrooms.

Partially sighted children are those with vision ranging from 20/200 to 20/70 or those having other types of visual handicaps that require special adjustments of instruction. These children are candidates for sight-saving classes.

In general, the following types of vision handicaps qualify a child for sight-saving class:

1. Vision ranging from 20/200 to 20/70
2. Ability to read normal print but at the expense of future vision
3. Progressive eye difficulties
4. Diseases of the eye that seriously affect vision

Children are classified as blind when they do not have sufficient vision for practical purposes. This means that they usually have less than 20/200 vision.

Provision for Blind Children. Blind children should be enrolled in a school for the blind or in a special class for the blind. They are taught to read and write Braille. In addition, special provision is made for vocational guidance and preparation.

Provision for the Partially Sighted. Partially-sighted children are not blind children. For the partially sighted, instructional materials and procedures are used to conserve vision. Provision is usually made for this group in a special sight-saving homeroom or in the regular classroom. Even when placed in a special sight-saving room, they engage in non-reading class activities in regular classrooms.

In the sight-saving homeroom, more light is provided, usually 25 to 30 foot candles. The books used are printed in large, bold type (about 24 to 30 point). Other visual aids to learning, such as maps and charts, are printed in extra-large type with a minimum of detail. Typewriters are equipped with jumbo or sight-saving type. Every effort is made to reduce or to eliminate the demand for the seeing of fine details.

Teachers' Contributions. Teachers have a very definite responsibility of co-operating with health specialists in referring pupils to special sight-saving classes. This is a preventive as well as a corrective measure. Information on sight-saving

matter of school referrals has not been worked out on any nation-wide basis. In order to develop an effective working program, school workers and vision specialists in many communities have arrived at mutual understandings. The following are some of the responsibilities of the specialist:

The School's Rights. Misunderstandings have arisen in the past when the doctor failed to inform the school regarding a given case. Since a technical report would be beyond the understanding of most school workers, this constitutes a full-fledged problem in communication. Nevertheless, the school has a right to a report, especially when school guidance is involved.

In some cases, the specialist is unable

to bring the child's vision up to normal. It is important for the school to know this for two reasons: First, the child may still be unable to see the blackboard clearly and therefore require a seat in the front of the room. Second, a retest at school may result in a serious misunderstanding.

Some cases may be diagnosed as progressive myopia (or nearsightedness) and, therefore, require a reduced reading load. If the specialist doesn't give the teacher advice on the matter, the child may end his school career in a sight-saving class. At this point it must be noted that considerable progress is being made on the correction of functional myopia by means of visual re-education.

A substantial percentage of pupils may

CHEIROSCOPIC DRAWING TO DEVELOP TWO-EYED VISION

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individuals in need of referral to a specialist have attracted the attention of state departments of education. Since the state has accepted some responsibility for identifying those school children in need of attention by a vision specialist, it appears that the approach at this point must be made through the parents.

The parents' first responsibility is to see that the "whole" child is sent to school. Among other things, this means that they must take the responsibility for having the child's eyes and vision checked before sending him to the kindergarten or first grade. This should be done by a specialist in vision who makes a complete visual analysis rather than by a general visual practitioner.

The parents' second responsibility is to have their child's eyes and vision checked annually or as often as the family specialist recommends. The very nature of school activities—with their emphasis on near-point vision—may cause visual difficulties to develop. Furthermore, developmental changes—especially at pubescence—may produce undesirable ocular changes. Parental responsibility for an annual eye and vision check-up by a specialist is inescapable.

Parents should not depend upon schools as they are organized and staffed today to detect visual difficulties requiring a specialist's attention, but when a recommendation is made by the school that recommendation should be acted upon. This is the third responsibility of parents. Some parents complain when the specialist does not verify the school findings on vision. This is an interesting situation because they don't complain about the dentist who finds no caries (cavities) during the semi-annual check-up. Sometimes, however, the specialist makes only an ocular examination and a distance vision test (i.e., at twenty feet). If the school has made use of a more thorough means of screening out visual problems, this type of check-up by the specialist is not adequate. This, then,

becomes a problem for the specialist and the school to confer about. In any event, it is the parents' responsibility to act on the recommendations.

To provide adequate guidance for children, parents—as well as teachers—need to be informed regarding preventive procedures. Rest and control of illumination in the home are two of the most important considerations. The establishment of regular hours of rest is often violated in the home, with the result that children come to school fatigued and irritable. Alongside the problem of regularity of sleeping habits is the control of illumination. Since homework has been quite largely banned, especially in the elementary school, lighting should be considered in relation to the child's recreational activities. Comics, at the best, are poor examples of typography and, therefore, should be read under good illumination. In general, it is best for the parents to be on the safe side by providing at least fifteen foot candles of diffused light for seeing activities in the home. While matters of this nature are parent responsibilities, the school is in a strategic position to further the dissemination of information.

The Specialist's Responsibilities

By and large, the prescribing of glasses is the bulk of a vision specialist's business. In short, that is how most of them earn their livelihoods. Vision specialists, like other professional workers, frequently specialize in some one area, such as *eyes* or *functional* problems. Eye physicians quite often only operate or treat pathological conditions. For these men, functional anomalies about which the bulk of the population complain are of little interest. Reputable specialists of this type refer functional problems to those specialists dealing with them. Likewise, there are specialists in vision who refer pathological problems to the eye physician.

The specialist's responsibilities in the

DEVELOPING VISUAL SKILLS

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school workers to see that children are given access to modern vision service.

The correction of visual difficulties is, of course, a major problem, but prevention should be the keystone of any vision program Early referral to a vision specialist and an annual ocular examination and visual analysis should be the foundation of a preventive program. When parents, schools, and vision specialists work together toward a common goal—the insuring of efficient vision—children reap the benefits.

There is no good reason why school workers cannot refer children. If expense for testing equipment appears to be the obstacle, techniques that require an outlay considerably under one dollar can be used. If preparation is lacking, there is much to be read and put into practice. A number of helps are given in the preceding discussion. If co-operation is not forthcoming from the vision specialist, then go more than halfway by calling on him at a convenient hour for a conference. If parents appear to be disinterested, call on them and find out the reasons. Perhaps funds are lacking. If so, contact the head of one of the community service clubs or welfare agencies. Yes, *where there is a will there are many, many ways.*

be in need of visual re-education which often requires daily office visits. Since many laymen are not aware of such needs and possibilities, the specialist's advice sometimes needs to be buttressed by the teacher's comments. A note from the specialist to the school in such an instance may save the child future vision trouble

A clearly worded, nontechnical statement to the school may enhance the specialist's services to his patient. Educational guidance programs are founded, in part, on such information.

Referrals A competent specialist will refer problems with which he is not equipped to deal. An eye physician uses special surgical equipment A doctor specializing in functional problems must have special apparatus for analysis and correction This requires referrals between professions dealing with vision problems So far as the school is concerned, it is the specialist's responsibility to develop a visual readiness for learning or to inform the school regarding the reason why it can't be done.

Eye and Vision Specialists Considerable confusion exists in the minds of non-specialists in vision regarding such terms as optometrist, oculist, ophthalmologist, and optician. Optometrists, oculists, and ophthalmologists are granted licenses by the state to examine eyes, to appraise visual functions, and to *prescribe* treatment. Opticians fill prescriptions for glasses and adjust them to the patient. In a sense, the optician serves the vision specialist in much the same way as the pharmacist, or druggist, serves the physician or doctor of internal medicine.

By special training in schools of optometry, the optometrists are prepared to deal with functional problems of vision This includes the examination of the eyes and the screening out of pathological conditions for referral to a specialist on diseases of the eye, the analysis of the visual functions, the prescription for glasses, and the treatment of functional disturbances by means of visual re-education, sometimes called orthoptics. In many states, four or five years of training in optometry are required for a license to practice. The optometrist is a specialist in seeing; that is, in functional problems of vision.

An oculist is a medical practitioner who has specialized in the disorders and diseases of the eye. While the term *ophthalmologist* is a much broader one than the term *oculist*, they frequently are used interchangeably. An ophthalmologist is likely to have had two years of eye work beyond his basic medical training.

Individual differences exist among vision and eye specialists as they do in other professional groups. This is true regarding both abilities and interests. Both optometrists and ophthalmologists are working to improve the professional standings of individual members. Among the optometrists, an increasing number are interesting themselves in more nearly adequate visual analysis procedures and in visual re-education (orthoptics) procedures and possibilities. While the basic medical training of the oculists and ophthalmologists undoubtedly dictates their interest in diseases of the eye and in surgery, there is some evidence of an increasing interest in functional problems of vision. Educators should be more concerned with professional service than with the type of degree the practitioner holds

Summary

Revised notions about eyes and vision have contributed to basic understandings regarding visual readiness for reading. Visually inefficient learners are denied the use of the visual approach to learning unless they learn to compensate for their difficulty or the condition is corrected. Fortunately, most visual problems are functional in nature and, therefore, can be corrected. While it is the job of the vision specialist to develop visual readiness for school activities, heavy responsibilities devolve upon parents and

CHAPTER XII

Auditory Readiness for Reading

Of all the physical factors, we recognize vision and hearing as those which most vitally affect the reading process. — J. WAYNE WRIGHTSTONE (21, p 15)

Hearing and Reading

Auditory readiness for learning—while less obviously related to success in reading than is visual readiness—appears to be an important factor. Recognition of this factor in the school can be made in three ways: through detection of the hearing handicap and referral for correction; through provision of favorable seating in the room for the child; and through adjustment of instruction to meet the needs of the hard-of-hearing. When a hearing handicap is of an extreme nature, special instruction must be arranged for.

Educational Implications of Hearing Impairments. It has been estimated that approximately three million children have impaired hearing. While hearing losses of varying degrees do not characterize the majority of the population, their early detection should be one of the responsibilities of school workers. Hearing impairments have a number of educational implications. First, defective hearing may retard speech development. Second, since reading ability is based to a substantial degree upon speech, impaired hearing contributes to reading-readiness problems and subsequently to reading retardation. Third, since all learning is based largely on language ability, a hearing loss may contribute to a lowering of educational achievement.

Fourth, since the interpretation of musical sounds is dependent, in part, on acute hearing, a hearing defect may contribute to a deficiency in this type of learning. Fifth, hearing losses often contribute to personality aberrations. Sixth, a hearing loss may be an indication of a specific or general health condition that reduces learning efficiency.

In a study of *The Auditory and Speech Characteristics of Poor Readers*, Dr. Guy L. Bond concluded (14, p. 43):

. . . it becomes apparent that some relationship exists between the method of instruction and the extent to which auditory abilities are factors associated with reading disability. If the pupil is exposed to an oral-phonetic type of instruction, auditory ability appears to be a factor of importance in relation to reading disability. If, on the contrary, the pupils are taught predominantly look-and-say techniques, auditory factors do not maintain their dominant position as characterizing elements associated with inadequate reading performance.

In regard to the relation of hearing impairments to reading achievement, the writer has reported (11, p. 746):

There was a greater incidence of hearing impairments among the lower achievers in reading than among the high achievers. This may indicate a possible causal relation, or it may reveal merely another difficulty for which the non-achievers must compensate.

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Incidence of Hearing Impairments

There are no clear-cut data on the percentage of school children who can be classified as mildly handicapped, hard-of-hearing, and totally deaf. Generally speaking, about fourteen per cent are claimed to have impaired hearing.

From New York City, this report has been issued (21): "Approximately five pupils in every class of thirty-three have some hearing defects." Since this report deals with *Determining Readiness for Reading*, it is assumed that these figures are based on studies of first-grade entrants. Ewing and Ewing (24, p. 258–259) report a study of New York city children and conclude "that one and one-half to three and one-half per cent of the whole school population suffer from a significant defect of hearing."

In a study of 1365 school children between the ages of eight and fourteen in the public and parochial schools of Baltimore, Doctors Crowe and Burnam found (1, pp. 15–31) only fifty-eight and eight tenths per cent to have normal hearing. This is especially significant because the defective children had "already been placed in special groups or vocational classes." Seventy per cent of the girls and only forty-seven and three tenths per cent of the boys were found to have normal hearing.

Variations in Hearing Impairments. Variations in reported incidences of hearing impairments may be expected for at least two reasons: First, the age levels studied have a bearing on the results. It is probably true that the incidence of hearing impairments among high-school students is higher than among elementary-school pupils. Second, the means used for detecting and measuring hearing impairments influence the results. For example, an individual audiometer test will reveal more impairments than a watch-tick test will

In a report on "Progress in the Con-servation of Hearing," Dr. Newhart commented (1, p. 130):

Extensive application of the audiometer has disclosed an unexpectedly high incidence of significant hearing deficiencies among our population By a significant hearing deficiency is meant any hearing impairment capable of interfering with the acquisition of normal, articulate speech, a fair education and a personality which will ensure to an otherwise normal individual his economic and social security

Causes of Hearing Losses

A hearing impairment existent at birth is called congenital deafness. A deafened individual acquires a hearing loss after birth.

CONGENITAL DEAFNESS

In some cases, deafness is caused by the congenital absence or deformity of some part of the hearing mechanism. For example, the individual may have been born without a canal, middle ear, or inner ear. Sometimes the eighth (hearing) nerve has been injured during birth. Then again, congenital deafness may have been brought about through congenital syphilis.

STOPPAGE OF OUTER CANAL

One of the most common types of conductive deafness is caused by a closure of the external canal. This is often brought about by the gradual accumulation of ear wax, or cerumen, which does not permit sound to reach the eardrum. This type of closure may be accompanied by head noises (tinnitus), nausea, and dizziness. Immediate relief from this cause can usually be obtained by the otologist. The condition is relieved by the removal of the wax.

Parents and children should be cautioned about picking out the earwax with hairpins and other devices. Wax accumulations are disposed of by normal bodily processes. Probably the safest maxim is: "Never put anything smaller than the elbow in the ear." To this

Helen Kennedy (46, p. 248) concluded that the type of hearing loss "seems to be the real determining factor in the relationship between hearing and reading." In her investigation, the children "with high frequency losses tend to be poor readers."

An undetected hearing impairment may be a handicap to general school achievement and personality development, with devastating effects upon the future life of the individual unfortunate enough to be so neglected. An example of this has been described by Baker and Traphagen (5, p. 150):

Defective hearing, like defective vision, may exist in a serious degree and yet pass unnoticed by the child, the teacher, his parents, or his friends. The best description of the effects of this situation on the deaf child may be in a story of a child named Lena. She was a big girl who sat in the back seat in school. She saw the teacher talking to the other children but thought she was just *addressing her favored few, and that all the rest had to guess at what she said to them just as Lena herself did.* Always she hoped it would soon be her turn to come up and hear *the interesting remarks that made the other children smile and raise their hands.* When the teacher said something directly to Lena, she only smiled back as the others had done. *After this happened a few times,* the teacher considered her silly, inattentive, and stubborn. This treatment persisted more or less throughout her school career. *She was put back or failed because she could not keep up with the group.* Her mates pointed to her as the biggest and dullest pupil in their group. *She was punished at home for her poor school marks,* because she did not come when called and because she did not follow directions properly. Not unnaturally she became bitter, hateful, and unsocial. It was not until long after she had left school at fourteen years of age that she discovered she was deaf.

bones across the middle ear, competent advice should be secured at the beginning.

Calcium Deposit. Another type of middle-ear disease is known by the technical name of *otosclerosis.* This disease is characterized by a progressive loss of hearing and by noise in the ears. An excessive deposit of calcium is made over the entire temporal bone. It produces conduction deafness by causing the oval window through which sound is transmitted to the inner ear to thicken and harden. This disease has been diagnosed in children as young as ten months. A loss of hearing is inevitable. Although this disease is not too well understood, it is believed to be inherited. More recently, a special operative procedure has been devised that results in satisfactory hearing.

Inner-Ear Diseases. One type of inner-ear disease occurs when an abscessed condition of the middle ear finds its way through the oval window to the inner ear. This disease is known as purulent labyrinthitis and produces a complete loss of hearing.

Poisons which invade the cochlea produce a toxic form of nerve deafness. This toxic condition may come from the blood stream or it may result from chronic conditions in the middle ear. The poisons may originate from the use of drugs; from infected adenoids, sinuses, and tonsils; from infectious diseases; or from constitutional diseases. A progressive loss of hearing can be expected.

Prevention of Ear Infections

Immediate Attention. One of the chief causes of ear infections is carelessness. Too often parents and school workers assume that earache and abscessed ears are ordinary ailments of childhood to be expected. As a result, expert services are not brought to bear on the problem at the onset. Furthermore, infection is allowed to smolder and become chronic after the ear appears "to dry up." Every-

one should realize that once hearing has been impaired, it cannot be restored. Hence, earache and abscessed ears in children should not be taken for granted. Damage can be prevented by immediate attention and continued treatment and observation until the condition has been pronounced under control by the otologist.

Preventive Measures. Since ear infections are usually caused by nose and throat infections it is highly important to base prevention on the early and proper treatment of them. Parents should assume the responsibility for periodic and thorough ear, nose, and throat examinations. Furthermore, when the school doctor, nurse, or some other qualified school worker recommends a nose and throat examination, it is the parents' responsibility to take required action. In some cases the removal of diseased adenoids and tonsils may be a necessary preventive measure. Deafness from diphtheria, scarlet fever, and certain other infectious diseases can be prevented by immunization. In addition, a child needs to be taught how to blow the nose. The best advice: "Blow gently with both sides of the nose open."

Many children learn to swim after a fashion without adequate instruction. They should be cautioned not to dive feet first so that water forcibly enters the nose. Water may enter the sinuses and Eustachian tube and irritate the linings. And above all, there should be no swimming when the individual is suspected of having a cold. A little precaution will go a long way toward preventing infections that damage hearing.

Appraisal of Hearing

Hearing is usually appraised by two means: pure tones and the sounds of speech. The most satisfactory type of appraisal is done by means of an instrument called the audiometer. *In addition to these, certain informal procedures have been used, such as the tuning fork, watch tick, and whisper tests. In giving*

should be added: "Consult your otologist when in need of treatment for the ear."

MIDDLE-EAR DISEASES

Conductive deafness may be caused by a number of middle-ear diseases, called otitis media. It has been estimated that more than one half of ear defects are caused by diseased conditions of the nose and throat Diseased adenoids and tonsils, neglected colds, chronic catarrh, and infectious diseases such as diphtheria, measles, and scarlet fever contribute to infections of the middle ear.

The middle ear is ventilated and drained by means of the Eustachian tube In children, this tube is short, wide, and nearly horizontal Since the lining is continuous with the middle ear and pharynx, it is relatively easy for infections of the nose and throat to find their way to the middle ear These infections cause the swelling of the Eustachian tube so that the ventilation and drainage of the middle ear are obstructed.

Middle-ear Catarrh. Middle-ear catarrh may be either acute or chronic If the condition is acute, the prompt action of a competent otologist may prevent a permanent hearing loss Nose and throat treatment is usually necessary for the Eustachian tube to reopen and to relieve the pain from the vacuum produced in the middle ear No serious hearing loss is likely to result if the Eustachian tube opens soon.

Recurring attacks of a catarrhal condition may result in chronic middle-ear catarrh A permanent hearing loss will result if the contributing causes are not brought under control. Furthermore, chronic progressive deafness may ensue. Chronic catarrh may be caused by the permanent growth of obstructive tissue around the opening of the Eustachian tube. With this opening obstructed, the drainage and ventilation of the cavity of the middle ear are interfered with As a result, fluids that do irreparable damage are drawn into the middle ear. The eardrum may become thickened and

retracted, and the tiny ligaments and delicate muscles of the three ossicles may develop adhesions with a resulting displacement of the bones. After the damage is done, the otologist is quite helpless in repairing it. About all he can do is to treat the original cause to prevent further damage to hearing. This may involve sinus treatment, removal of tonsils and adenoids, removal of nasal obstructions, and treatment of the Eustachian tube opening. Chronic middle-ear catarrh is one of the most common ear diseases. Prevention is most important because hearing losses incurred as a result of this condition cannot be repaired.

Abscessed Ear. An abscessed or discharging ear—called purulent otitis media—is caused by a bacterial invasion of the middle ear via the Eustachian tube. When the bacteria attack the lining of the Eustachian tube and the small cavity of the middle ear, pus develops. In acute cases this causes a reddening, swelling, and bulging of the eardrum. As long as the Eustachian tube remains open, this pus drains into the throat. When the tube closes, the pus soon fills the middle-ear cavity, then pushes into the nearest mastoid cells and bulges or ruptures the eardrum. Irreparable damage will result if expert attention is not provided at once

Too often this abscessed condition is brought on by improper blowing of the nose. If the blowing is too forceful at any time, damage may be caused Frequently this condition can be corrected by treatment that will open the Eustachian tube. When this treatment is futile, an incision of the eardrum is necessary. If the incision is not made, the drum may rupture Contrary to popular opinion, this incision soon heals and does not impair hearing Removal of infected mastoid cells is essential in some cases to insure a dry ear and freedom from hearing loss However, if drainage can be secured for a week or two, the discharging ear may clear without a hearing impairment. To prevent damage to the tiny chain of

HUMAN HEARING

SCHEMATIC REPRESENTATION OF INTENSITY AND FREQUENCY CHARACTERISTICS
OF THE HUMAN EAR AND LOUDNESS OF SOUNDS

Courtesy of Maico Company, Inc.

any hearing tests, the examiner should use a sound-proof room or a room with a low noise level.

Teacher Participation Many teachers work in situations where adequate health service is not provided. Then, too, hearing tests are too frequently given only as a part of a two- to five-minute annual health inspection. Since modern education is based on the notion of the needs of the whole child, these situations make it mandatory for the teacher to possess some knowledge about hearing and how to detect individuals with hearing losses. When schools are adequately serviced, routine testing is done with a view to prevention rather than merely to screen out those already in trouble.

Every school system should be equipped with audiometers. Where they are not, school workers must depend upon crude tests and systematic observations of symptoms of ear trouble or hearing impairments.

SYSTEMATIC OBSERVATION

The teacher is in a crucial position to make systematic observations of ears and hearing. When symptoms are observed, a brief questioning of the individual may reveal ear or hearing troubles. The teacher should suspect hearing trouble from the following symptoms:

1 Monotonous or unnatural pitch of voice
2. Faulty pronunciation and lack of clear or distinct speech
3 Turning one ear toward the speaker
4. Poor spelling
5. Inattention
6. Frequent requests for repeating questions or statements
7 Difficult breathing, including mouth breathing
8 Earache
9 Discharging ears
10 Catarrhal conditions
11. Sinus infection
12. Frequent colds
13. Excessive accumulation of earwax

14. Rubbing and picking at the ear
15. Head tilt
16. Reports of
A. Dullness or blocked feeling in ear
B. Head noises, such as ringing or buzzing

TUNING-FORK TEST

Before the advent of more carefully controlled testing procedures, tuning forks were used to make a crude appraisal of hearing. For this purpose, a number of tuning forks of varying tones were used to study the loss of hearing at given pitches. Since the volume could not be accurately controlled, this method provided only an estimate of hearing loss at a limited number of frequencies. This technique is seldom used now.

WATCH-TICK TEST

A stop watch has often been used to test hearing. The procedure is to determine the farthest distance from the ear at which the subject can hear the watch tick. With a good watch, the examiner can make a rough estimate of hearing loss for a frequency in the neighborhood of 2000 cycles. It is clear that this test is not an adequate substitute for an audiometer test.

Chenoweth and Selkirk make this recommendation regarding the watch test (18, p. 225)

The watch test is convenient and requires very little space. The watch used should be of medium size and quietness. A dollar watch will be too loud and a wrist watch too quiet, as a rule. The examiner holds the instrument in the palm of his hand and stands behind the child being examined. One ear is examined at a time; the ear not being examined is covered with the palm of the free hand. The watch is held at arm's length from the ear and gradually brought closer until the subject signifies that he hears its tick. By using the same watch in all tests the examiner can estimate normal and impaired hearing.

FORCED WHISPER AND LOW-VOICE TESTS

This type of test is administered in a number of ways. The subject closes one

A GROUP AUDIOMETER TEST

Allegra Inglenght   *South Bend, Ind.*

creased, a sensation of discomfort is experienced. When this is increased to a level that results in sharp pain, the threshold of feeling has been reached. The range of intensity between the threshold of audibility and the threshold of feeling is extensive, being greatest for a tone of 2048 cycles per second.

Hearing acuity is measured in sensation units, or decibels. A decibel is usually defined in nontechnical language as the least amount of change in the loudness of a sound that can be detected by the human ear. In short, it is the least amount of difference in the loudness of two sounds that can be perceived.

Hearing loss is also expressed in percentage. Complete loss of hearing is believed to be in the neighborhood of about 120 decibels. Dividing 100 (per cent) by 120 (decibels), one decibel of loss would be about 0.83 per cent. Since 120 decibels of loss for complete deafness is only an approximation, these are usually multiplied by .8 to arrive at the per cent of loss. For example, a loss of 40 decibels would be approximately a 32 per cent loss. Audiometers in common use measure up to 100 decibels of hearing loss.

The frequency of a tone is usually described in terms of cycles, or double vibrations, per second. The low tones are 64 and 128; the speech tones, 256, 512, 1024, 2048, the secondary speech tones, 4096 and 8192 cycles per second. Half- and quarter-octave frequencies are valuable for testing on some audiometers.

The term *average loss* usually refers to loss of hearing in the speech range. This may be computed on either of two bases. The measured loss for each of frequencies 256, 512, 1024, 2048, and 4096 may be added and divided by five. Many authorities, however, use the measured losses for the first four frequencies and divide by four to determine the average loss. Computing the average loss for the speech range is valuable for studying the subject's ability to interpret speech, but it is not sufficient for appraisal of general hearing efficiency.

Group Audiometer Tests. One of the boons to health testing in schools was the advent of the audiometer for group testing. By means of special and well-controlled recordings, a portable phonograph with several single headphones attached is used to test up to forty indi-

ear This may be done by pushing the tragus of the outer ear over the opening of the canal with the forefinger or by plugging the ear with cotton. The other ear is then tested The subject should turn the ear under test toward the examiner, but should not be allowed to read the examiner's lips Whisper tests are often made at about 15 inches and low-voice tests at about 20 feet. The examiner pronounces words and numbers for the subject to repeat If the subject cannot hear the sounds, the examiner moves up to a point where they can be heard Each ear is tested By comparing the findings of a given individual with those of an individual's of about the same age, the examiner is able to screen out those cases in need of referral to a hearing specialist Here again, this test is not an adequate substitute for an audiometer test

AUDIOMETER TESTS

The audiometer has found its way out of the psychologists' and physicists' laboratories to become an instrument for clinical and general use The measurement of hearing losses has become known as audiometry In the hands of school workers, the audiometer has become an accurate means of screening out individuals with hearing losses for referral to a specialist for diagnosis and possible correction The audiometer has been a boon to the hearing specialist because it has reduced errors, taken considerable of the guesswork out of diagnosis, and provided a reliable means for predicting the progress of hearing losses and for prescribing hearing aids In short, the audiometer has provided a common ground for intelligent co-operation between the school and the hearing specialist

In general, instruments for testing hearing may be classified as of two types' group tests and individual tests Devices for testing the hearing of an entire class at one sitting or test period are called group audiometers Those used for individual testing are called individual audiometers. Most modern school systems employ both group and individual audiometer tests.

In administering any type of hearing test, the noise level of the room must be taken into consideration. The examiner must be careful to avoid measuring the noise level of the room rather than the hearing loss of the subject. Noise level may mask the test sounds. For this reason, it is preferable to administer hearing tests in sound-proof rooms, or at least where a reasonable degree of quiet exists.

Two sets of terms are used in discussions of sound. The physicist speaks in terms of intensity and frequency; the psychologist in terms of loudness and pitch The intensity of a sound is interpreted by the human organism as loudness; the frequency, as pitch. Two aspects of auditory sensation are loudness and pitch and they are not synonymous with intensity and frequency. Loudness is largely a function of the intensity of a sound, although loudness does depend upon other factors When put on a scale, loudness ranges from "soft" to "loud" Pitch is largely a function of the frequency of a sound, but, here again, other factors also contribute to pitch When put on a scale, pitch varies from "low" to "high"

When the middle C key of the piano is struck, sound waves are set up in the air at the rate of 256 vibrations, or cycles, per second The audible frequency range extends approximately from 20 cycles to 20,000 cycles. That is, the average normal ear will respond to sounds of those frequencies The low limit of audibility is 16 cycles; the high limit, 40,000 cycles. The principal voice range is approximately 125 to 4,000 cycles per second

The limits of the sense of hearing lie between the threshold of audibility and the threshold of feeling. For a given sound there is a level below which it is inaudible and at which it can be heard This is known as the threshold of audibility. As the intensity of the sound is in-

HEARING TEST CHART

FOR USE WITH WESTERN ELECTRIC NO. 4 TYPE AUDIOMETERS

NAME _____ AGE ____ SEX _____   **DO NOT MAKE**

ADDRESS _____   **ANY NOISE AS**

GRADE _____ SCHOOL _____   **IT WILL SPOIL**

DATE _____ HOUR _____   **THE TEST**

INSTRUCTIONS

1 WRITE YOUR NAME, AGE, SEX, ETC., IN THE SPACES ABOVE.

2 YOU WILL HEAR NUMBERS SPOKEN BY A PERSON WHO IS MOVING AWAY FROM YOU. THE VOICE WILL
   GET WEAKER AND WEAKER. LISTEN CAREFULLY AND WRITE AS MANY NUMBERS AS YOU CAN.

RIGHT EAR				HEARING GRADE	LEFT EAR			
1	2	3	4		5	6	7	8
				30				
				27				
				24				
				21				
				18				
				15				
				12				
				9				
				6				
				3				
				0				
				−3				

HEARING GRADE   HEARING GRADE

TESTED BY _____   GRADED BY _____

HISTORY

1 DID YOU EVER HAVE AN ACHE OR PAIN IN YOUR EAR? _____ WHICH EAR? _____ WHEN? _____

2 DID YOU EVER HAVE A RUNNING EAR? _____ WHICH EAR? _____ WHEN? _____

3 DOES IT RUN NOW? _____

4 DO YOU EVER HAVE NOISES IN YOUR EAR LIKE BUZZING, HISSING, OR ROARING? _____
   WHICH EAR? _____ WHEN? _____

5 HAVE YOU HAD YOUR TONSILS OR ADENOIDS REMOVED? _____

6 WHO IN YOUR FAMILY DOES NOT HEAR WELL? _____

7 HAVE YOU EVER HAD A MASTOID OPERATION? _____

8 HAVE YOU A COLD NOW? _____

9 DO YOU HAVE A COLD OFTEN? _____

viduals at one time. An audiometer designed for group testing cannot be used for diagnostic purposes and, furthermore, is no substitute for an audiometer designed for individual testing.

One widely used audiometer for group testing is the Western Electric 4C Audiometer, formerly coded 4B. In a folder of recent issue, the manufacturer offers this description

The Western Electric 4C Audiometer is essentially a phonograph to which has been added telephonic apparatus so that the sounds produced in the phonograph can be transmitted to the ears of individuals under examination. It consists of a spring motor phonograph using a magnetic reproducer instead of the usual acoustic reproducer. The magnetic reproducer picks up the vibrations originated by the record and transforms them into electrical vibrations. These in turn are conveyed to a telephone head-set, transformed into sound waves and delivered to the ear of the person or persons under examination who hear as if by telephone. All the necessary electrical energy is developed in the magnetic reproducer. *No batteries or other outside sources of electric energy are required*—thereby reducing maintenance cost to a minimum

The hearing test record employed with the 4C Audiometer is double-faced and is made especially for use with this instrument. It is so arranged that the intensity of the speech sounds (numbers) transmitted to the listener's head-set decreases in small steps from a maximum to a minimum intensity. This process occurs four times in playing each side of the record. The series of numbers on each face is spoken in a woman's voice. Each decreasing series is composed of different numbers, since repetition would introduce a memory factor into the test. The same rate of intensity attenuation is, however, maintained in all four series. Each ear of the patient can, therefore, be tested twice at each intensity. The determination of hearing loss can thus be made with considerable accuracy.

Two records are provided: one with two digit numbers is used for conducting the hearing test; the other, having a

rapidly varying tone of constant intensity is used for detecting deficient receivers. Experience has shown that grades below the last half of the second year cannot be tested satisfactorily in large groups.

Each individual under test is supplied with a record blank that is self-explanatory. The listener writes the numbers dictated to him from the phonograph record. Each set of numbers is given with decreased intensity. If a hearing defect for speech sounds is present, a point is reached at which the sounds are no longer intelligible. This point provides an index to the amount of hearing loss. Reliability is improved by giving four tests for each ear. The time required for testing one group of children may be expected to vary from fifteen to forty minutes, depending upon the age level.

The following is a summary of important information regarding the use of a group-test audiometer:

1. Records should be discarded after one hundred playings. All scratched or otherwise damaged records should be discarded

2. A new needle should be used for each side of a record. Only needles prescribed for use in a given machine should be used.

3. When testing, the examiner should close the cover of the phonograph to minimize needle noise.

4. The receiver should be adjusted to each individual under test so that a good fit is insured.

5. Every effort should be made to safeguard against extraneous noises in the room during the test, especially when the low-volume sounds are being given. For example, it is not advisable to walk around the room

6. When grading the test records, credit for hearing may be allowed if two out of three (for three-digit records) or one out of two (for two-digit records) are correct.

7. A hearing loss of six to nine decibels is generally considered to be the border-

A pure-tone audiometer test should be given to pupils suspected of having ear trouble or a hearing loss. This would include retarded readers, speech defectives, the mentally retarded, children evidencing a handicap in music activities, and the like. In addition, children screened out by means of a group test of hearing and, therefore, suspected to have *hearing losses* should be retested by means of a *pure-tone audiometer. In order to prevent maladjustments and to avoid health hazards, it is desirable to make annual, or at least biennial, pure-tone audiometer surveys which are indispensable in psychological, reading, and speech clinics.*

In general, pure-tone audiometers have four controls for air conduction testing. First, a switch for turning the power on and off. When the power is turned on the signal light can be operated as a test. Some audiometers are equipped with a pilot light to indicate when the power switch is on the "on" position. Second, a tone-interrupter switch. When the switch is depressed, the tone is interrupted and no sound is heard from the receiver. This is used to check on the reliability of the examinee's responses and to interrupt the tone when changing intensities Third, a frequency dial for "tuning in" the desired test tone. Fourth, a hearing loss dial for adjusting the loudness of the tone. Very little practice is required for the efficient management of these two switches and two dials

On most pure-tone audiometers there are seven or eight major charting points, or major frequencies, for which the hearing is tested. Usually the major charting points include: 64, 128, 256, 512, 1024, 2048, 4096, and 8192 cycles per second. Sometimes the major charting points embrace these frequencies: 125, 250, 500, 1000, 2000, 4000, and 8000. Seven or eight major charting points, or test frequencies, are quite adequate for use by school workers.

The purpose of audiometer measurement is to determine for a given fre-

quency the lowest intensity of sound that is audible to the examinee. To do this, the dial is turned to a given frequency—usually 1024 or 128 cycles—and the attenuator, or volume control, is adjusted so that the examinee is given a clearly audible sound. When the examinee signals his hearing the tone, the intensity of the signal is reduced to the point at which the tone is no longer audible. At this point, the tone is interrupted by the examiner and the intensity is readjusted to check on the reliability of the subject's response. When the lowest intensity level at which the tone is just audible to the subject is determined, the procedure is duplicated for each of the succeeding frequencies, such as 256, 512, 1024, etc In short, an individual audiometer test is used for two purposes. first, to determine the range of test tones that can be heard (e g., 128 to 8192); second, to determine the threshold of audibility for each test tone (i.e , the sound intensity below which the tone cannot be heard and at which the tone is just audible).

The pure-tone audiometer has several advantages. First, sounds audible to the human ear can be produced reliably. Second, the sound used as a stimulus to hear is subject to exact control. Third, school children with hearing losses can be screened out fairly rapidly. By using a sweep-check technique on an individual-type audiometer, an experienced examiner can make a fairly adequate appraisal of a co-operative individual's hearing in approximately two minutes.

At present, pure-tone audiometers have certain limitations. First, the tones produced are sounds not likely to be experienced by the listener in normal life situations. For example, speech sounds and musical notes are much more complex than the pure tone emitted by the audiometer. Second, only monaural hearing (i.e., the hearing of one ear at a time) is tested. Auditory fusion and perception of depth (localization of sound, or stereophonics) are not appraised by

Sound Frequency Characteristics

MAICO COMPANY, Inc.

THE MEDICAL ACOUSTIC INSTRUMENT COMPANY

2616-26 NICOLLET AVENUE ◆ MINNEAPOLIS, MINNESOTA

means of the pure-tone audiometers in common use. Third, an audiometer, even more so than a radio, requires servicing To date, adequate provision for servicing has not been made by the manufacturers. Fourth, very young children, such as kindergarten pupils, cannot always be reliably tested

The following is the listing of the distributers of pure-tone audiometers

Aurex
  Aurex Corporation
  2400 Sheffield Avenue
  Chicago, Illinois
Maico D-5, Maico D-6
  Medical Acoustic Instrument Company
  83 South Ninth Street
  Minneapolis, Minnesota
Sonotone, Model 2
  Sonotone Corporation
  Elmsford, New York
Western Electric 6B (later design than 6A)

Graybar Electric Company
(Offices in principal cities)

Minimum requirements for acceptable audiometers have been established by the Council on Physical Therapy of the American Medical Association, Chicago, Illinois. A list of audiometers and hearing aids found acceptable by this committee and a description of the standards employed can be obtained on request.

Test Procedures

DIAGNOSTIC AIR-CONDUCTION TEST

The following is the sequence for appraising overall hearing impairments by means of an air-conduction test:

1 Make hearing tests in a room that is as free as possible from extraneous noises. *If the room is noisy (e.g., whistling radiators, sliding chairs, conversing bystanders, etc), the examiner may meas-*

AN INDIVIDUAL AUDIOMETER TEST

Courtesy of Western Electric Company   *New York, N Y*

of loss or more if the examinee has a hearing loss. When the intensity is too great, the examinee is subjected to unnecessary discomfort. The examiner should always insure the examinee's hearing the tone distinctly before reducing the intensity of the tone. This is essential for accurate responses. To further insure accuracy of response, interrupt the tone with the interrupter button or switch to check on the examinee's signals and to help him decide whether the tone is still faintly audible.

The standard method of making a pure-tone audiometer test is to give the examinee a sample of the tone and reduce the intensity until it is inaudible. Some examiners begin with an inaudible tone and increase the loudness until it is audible. This is not the standard procedure because it will show more severe losses than the standard procedure. A sample tone must be given before testing so that the examinee will know what to listen for.

8 Fade out rapidly with loudness, or intensity, control until examinee signals he has lost the tone. At this point, interrupt the tone by means of the interrupter switch. When the tone is interrupted, the examinee should press the button on the signal cord to extinguish the light. It is desirable to interrupt the tone when changing the intensity.

a. If the subject *can indicate* accurately when the tone is on or off, interrupt the tone and *reduce* (i.e., turn the dial counterclockwise) the intensity another five decibels. Check tone recognition by the interrupter as before.

b. If the subject *cannot indicate* accurately when the tone is off or on, interrupt the tone and *increase* (i.e., turn the dial clockwise) the intensity another five decibels. Check tone recognition by the interrupter as before.

9. Record on the audiogram the examinee's threshold of audibility which is the lowest intensity at which he can identify accurately when the tone is interrupted. This should be done by some

standard procedure and at the time when the hearing loss finding is taken for each test frequency. The loss—expressed in decibels—is read directly from the hearing loss dial.

a. Use a solid line to connect (or to graph) the hearing loss for air-conduction findings. (A dotted line is used for recording bone-conduction findings.)

b. A small circle can be used to designate the level of audibility for each test frequency for the right ear; and x, for the left ear.

c. The hearing loss of the examinee is determined by the point at which the light and the tone are interrupted together (i.e., the tone by the examiner and the light by the examinee) for the tone that is barely, or just, audible.

Usually the same audiogram is used for reporting all the findings for a given individual. Sometimes, however, examiners prefer to prepare two audiograms: one for the right ear and one for the left ear.

10 Proceed in like manner for each of the major charting points.

a. If the testing was initiated at the 128 frequency, repeat the above procedure for each succeeding test frequency.

b. If the testing was initiated at the 1024 frequency, the remaining test frequencies should be selected in this order: 2048, 4096, 8192, 512, 256, 128

Some examiners prefer to alternate from one ear to the other for testing. For example, the low tone frequency (128 cycles) for the right ear is tested first. Then the left ear is tested for the 128 and 256 frequencies followed by the testing of the 256 and 512 frequencies for the right ear and so on. The writer prefers to test for all the frequencies of one ear before testing the other ear, especially for children.

SWEEP-CHECK TEST

The pure-tone audiometer can be used for the rapid screening out of individuals with hearing impairments by using a

ure the noise level of the room instead of the hearing loss of the examinee. Thus holds especially true for individuals with normal or near normal hearing. If a room free from extraneous noises cannot be secured for audiometric testing, the noise level of the room should be tested. This can be done by testing a person with normal hearing in a sound-proof room or very quiet room and then by testing in the test room to be used. Any resulting loss in hearing the test tones can then be charged to the noise level of the room and, therefore, subtracted from hearing losses obtained in the regular test room

2 Connect the audiometer to the power source and insure its proper operation before any testing is done. Audiometers are usually designed to operate on one of two types of power sources 110–120 volts of 50–60 cycles A.C (alternating current) or D C (direct current) An audiometer should not be connected to the power source until information has been secured on the type of current available and the type of current required for the operation of the audiometer. After the audiometer has been connected to the proper power source, the examiner should briefly test his own ears to insure proper functioning of the audiometer. If a 60-cycle line hum is heard, steps should be taken to correct the condition. First, try reversing the A C power plug. Second, the hum may be caused by a defective tube which should be replaced. Third, on the Western Electric 6A and 6B audiometers, a calibration knob is used to check the hum. With the frequency dial set at 0 and the hearing loss dial set at maximum loudness, the examiner listens to the receiver and sets the calibration knob midway between positions giving a just audible tone. When the midway position is correctly ascertained, no hum is heard

3 Seat the examinee behind the audiometer so that the control panel is not visible to him. The examinee should con-

front the examiner from the other side of the audiometer. This seating arrangement is necessary in order to reduce the possibility of securing cues which could result in a lack of reliability.

4. Give a careful explanation of the testing technique to the examinee. This instruction should include what to listen for and the means of signaling his responses to the examiner. First, explain that the purpose of the test is to find the least amount of volume (or loudness) necessary to hear a given tone. Second, explain how to signal either by means of the signal cord and signal lamp or by raising a finger or the hand. Many examiners, especially of children, prefer to have the examinee signal his responses by raising a finger or the hand when the tone is heard. If the signal cord is used, the examinee should be instructed to *press the button and keep the light on as long as he hears the sound* In no event should the voice be used during the testing; conversation should be kept at a minimum

5 Instruct the examinee on how to hold the earphone to the ear. Have the center of the earphone over the opening of the canal. While an airtight placement is not desirable, the earphone should be held firmly enough to keep out extraneous noises. Most receivers are equipped with a soft rubber cap that helps to hold the receiver to the ear. The receiver should be held with one hand so that the other hand is free for signaling responses When testing children, the examiner should always place the earphone on the child's ear. This safeguards the earphone which is easily damaged by dropping on a hard surface. Earphones require careful handling.

6 Set the frequency dial at the desired setting. The more or less standard procedure is to begin at 1024, although many examiners begin at 128.

7 Set the hearing loss dial (hearing loss potentiometer) so that the tone is easily audible to the examiner. This sample tone may be given with the hearing loss dial set at about 50 to 70 decibels

AUDIOGRAM OF_____ _____AGE_____ DATE_____ 19___ NO.____

ADDRESS_____

AVERAGE NORMAL HEARING
AGES 18 TO 25
SEE BULLETIN NO. 841 FOR NATURAL
LOSS OF HEARING WITH AGE

REMARKS
_____
_____
_____
_____
_____
_____

RECORDER_____

FOR USE WITH WESTERN ELECTRIC NO. 6 TYPE AUDIOMETERS

FREQUENCY IN CYCLES PER SECOND
AIR CONDUCTION: RIGHT O   LEFT X
BONE CONDUCTION: RIGHT [LEFT]

a hearing profile, or graph, or hearing curve, indicating the loss of hearing at each frequency and the examinee's hearing pattern. Audiogram charts are usually made available in two or three sizes by the distributor: three by five inches, four by six inches, and five by eight inches.

The horizontal line near the top of the audiogram used for recording zero hearing loss represents average normal hearing for adults in a sound-proof room. The human ear does not have equal sensitivity for each of the audiometer test frequencies; instead, it is more sensitive to the middle range of pitches which characterizes speech. In short, the human ear can hear a sound of much less intensity at 1000 cycles than at 60 or 8000 cycles. This situation has made it necessary to calibrate the audiometer in terms of normal hearing for each frequency so that zero loss of hearing can be indicated by a straight line.

Hearing acuity declines with age, especially for the higher tones. For example, at seventy years of age, there may be normally a loss of sixty to seventy per cent.

BASES FOR REFERRALS

One of the problems faced by the school worker is that of bases for referral to a hearing specialist. First, the school worker is confronted with the need for establishing a satisfactory basis for referral. Second, when the need for referral has been established, the next question is, "To whom should the referral be made?" These aspects of the problem of referral are discussed here.

In general, the school worker should refer a pupil to a hearing specialist when there is evidence of 10 or 15 decibels of hearing loss accompanied by symptoms of an ear infection or a hearing impairment. To safeguard the child's health, the school worker should follow the maxim: "When in doubt, refer." This policy may refer cases not in need of immediate attention, but the decision should be made by a competent doctor after he has completed a thorough examination.

Dr. Robert West has indicated the educator's interest in nonpathological cases of hearing losses (74, p. 15):

sweep-check test procedure. Briefly, the hearing loss dial is set at approximately ten decibels of loss—or more if there are extraneous noises—and the examinee is given the test tones in rapid succession by turning only the frequency dial. The interrupter switch is used while shifting from one frequency to another and to check on the reliability of the examinee's report. If the examinee does not hear a given frequency, the examiner may then make the customary test of hearing loss.

The sweep-check test has three advantages. First, approximately fifty to sixty individuals can be tested in one hour. Second, schools financially unable to purchase both a group-test audiometer and a pure-tone audiometer can make double use of the latter, i.e., use the individual audiometer for both screening and analysis purposes. Third, schools in which the use of the group-test audiometer is not feasible (e.g., where street noises and the like preclude testing) can set aside a small sound-proof cubicle for sweep-check testing.

Audiometers in general use are of two types so far as the frequency dial is concerned: uniform zero-reference level and varying zero-reference level. Because the human ear is not equally sensitive to each of the standard test tones, some means of compensation must be made in calculating the hearing loss. One type of audiometer (the Maico, for example) is designed so that the operator has only to shift the frequency dial to each new test frequency and the compensation is made in the instrument. This first type is then said to have a uniform zero-reference level. With this first type, the use of the sweep-check procedure is facilitated. A second type of audiometer (the Western Electric 6A or 6B, for example) in common use is designed so that the compensation is made by the operator's adjustment of the hearing loss dial for each test frequency. In short, the reference level varies with the frequency under test. This requires more time to do sweep-check testing because the operator must not only change the frequency dial setting but also he must change the hearing loss dial setting.

Hearing specialists and some school workers, such as speech and reading specialists, make both air-conduction and bone-conduction tests. This is done to indicate what part of the hearing mechanism may be defective. Air-conduction hearing efficiency is appraised by using an earphone through which the sound is transmitted. A hearing loss detected by this means may be caused by inefficient conduction of the sound to the inner ear or by a nerve involvement. When the hearing is found to be normal by means of an air-conduction test, no further functional testing is done. However, when a loss is detected by means of an air-conduction test, a bone-conduction test is made to supplement the information. For this test, a special small receiver is placed on the mastoid region and the sound is conducted by the skull to the cochlea where it is translated into nerve impulse. (A complete description of bone-conduction technique will not be given here.) If the hearing is less impaired by bone conduction than by air conduction, then the difficulty probably lies in the middle ear. On the other hand, if both air-conduction and bone-conduction tests reveal defective hearing, then the nerve is involved and the prognosis is not encouraging.

AUDIOGRAMS

Thresholds of audibility are recorded on charts, called audiograms. These records are sometimes called audiocards. For individual-test results, the record usually consists of vertical and horizontal lines. The vertical lines are used to indicate the frequency of the test tone, e.g., 188, 256, 512, etc. The horizontal lines are used to indicate hearing loss. For example, on the right-hand side the scale for indicating hearing loss may be described in terms of decibels; on the left-hand side in terms of percentage loss. This chart, or audiogram, then provides

parent education and the education of children in the classroom. Adequate tests of hearing must be made in the school and followed up by the school health department and the teacher. Since the child is prone to "hide" such defects, it is the teacher's responsibility to detect them. If the teacher is to assume her full share of responsibility in prevention, she must appreciate the problems of children with hearing impairments.

A second important follow-up is the correction of remediable defects. In order to get at the cause of the impairment, it is often necessary to have an examination made by ear, nose, and throat specialists. The teacher's responsibility, however, does not cease at this point. Sometimes it is necessary to persuade parents to provide appropriate treatment.

Dr. Ruth Strang has offered these comments on the fact that many remediable health defects among school children remain uncorrected (36, p. 227):

Surveys have shown that many remediable defects exist among children on all educational levels and that a large percentage of defects reported by physicians remain uncorrected An experimental study of this problem in one large city showed that the parents were not entirely to blame. This failure to have defects corrected was frequently due to a lack of coordination among medical office, nurse, teacher, and parent. If the physician at the end of a day's examination of children can meet with the administrator, counselor, and teachers of the pupils, the adjustments necessary for the child's best health can be made without delay. Accurate, cumulative, and comprehensive records that go with the child as he moves from class to class and from school to school would prevent a tremendous waste of valuable diagnostic material.

A third type of follow-up on hearing tests involves educational adjustment. Upon the advice of the medical specialist, some children should be sent to special schools for the deaf or to special classes for the hard of hearing. Others may be adjusted by means of hearing aids. In many instances, the child may be taught in the regular classes of public schools by teachers who have an elementary understanding of the problem.

Early Beginnings. The hard-of-hearing and those with mild hearing impairments should be detected in the kindergarten so that immediate steps may be taken to bring about satisfactory adjustment. Upon the advice of a hearing specialist, the teacher can do three things to assist a child with a hearing impairment. First, the child should be seated in the front of the room. Generally speaking, a child with a right ear impairment should be seated on the right side of the room, and *vice versa.* Second, if it is necessary for the child to read lips, he should be seated near the windows so that he can see the faces of the teacher and pupils. Third, if it is necessary, lip reading instruction should be provided. This can be done by the classroom teacher, a speech correction teacher, or a special teacher of lip reading.

Summary

Hearing impairments may block the child's general educational progress and appear to be related to retardation in reading. If adequate adjustments are made to sensory defects, they need not hamper achievement.

Some of the high lights of this discussion may be summarized as follows:

1. Hearing impairments do have educational implications

2. Estimates of the prevalence of hearing impairments range from about one per cent to fifty per cent, depending largely upon tests employed and age of the children.

3. The auditory mechanism includes the outer ear to collect sound waves, the middle ear to transmit the sound waves to the inner ear, and the inner ear where the sound waves are converted into nerve impulses.

4. Hearing impairments range from deafness through hard of hearing to mild deficiencies.

The educator is interested in a larger group of those having reduced acuity of hearing than is the otologist There is a large group of borderline defectives who show no otological pathology, but who have impairments of hearing that need to be taken into account in adjusting the school program to their needs The seating arrangements of the classroom were stressed by many of the speakers as highly vital to these borderline non-pathological cases of hearing impairment.

When a pure-tone audiometer is used for securing air-conduction test findings, six general types of hearing losses may be discovered First, the loss may be greater for the lower frequencies than for the higher frequencies This loss may be indicative of a conductive-type loss Second, the loss may be greater for the higher frequencies than for the lower frequencies This may be indicative of a nerve involvement. Third, the loss may be about the same for all frequencies Fourth, a loss may be evidence for the low frequencies with a still greater loss for the higher frequencies This may be indicative of a mixed-type hearing impairment Fifth, the loss may be considerable for one or two test frequencies This is indicative of an island of loss Sixth, a significant difference may be evidenced between the hearing losses recorded for the two ears

In general, referral to an otologist can be made on two bases first, a hearing loss of 10 decibels or more, second, symptoms of an ear infection or of a hearing impairment

In 1938, the writer made an inquiry regarding the basis for referral to Dr Horace Newhart, then Chairman of the Committee on Deafness Prevention and Amelioration, The American Academy of Ophthalmology and Otolaryngology The following is an excerpt from his reply

We have adopted the attitude that the interest of the child should be our first con sideration The danger has been that many who need scrutiny by an otologist have not been referred at the time when medical care would yield the best results. The fact that hearing acuity is subject to great variations in any given individual makes this possible Seasonal conditions, the presence or absence of upper respiratory infections, and nutritional disturbances are all factors to be considered In general, we believe that any child having a hearing loss of approximately ten decibels or more in one or both ears as proved by a recheck with a pure tone audiometer should be referred to an otolaryngologist

We recommend the use of a questionnaire The evaluation of the answers to this questionnaire as well as the audiometric findings should be considered in determining whether or not a given pupil requires a physical examination Even though the audiometer at the time of the test shows no significant loss, if the history is bad with respect to head-colds, discharging ears, head-noises, mouth breathing, etc, the child should be given the benefit of doubt and be referred to a physician or otologist

Organizations

Groups interested in hearing problems have formed organizations dealing with a variety of problems Helpful information can be secured by writing to the addresses below. These groups are currently active Other organizations which may be helpful in this field are formed from time to time and you may be able to locate their names and addresses through other sources as they appear.

The American Hearing Society
817 Fourteenth Street, N W.
Washington, D C

American Society for the Hard of Hearing
1800 H Street, N W.
Washington, D C

Follow-up

Co-operation Needed. From this discussion of auditory readiness for learning, it should be clear that the emphasis should be on the prevention of hearing impairments. This can be done in part through

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5. Hearing impairments may be caused by faulty conduction to the inner ear or by danger to the nerve.

6 The school should assume the responsibility for the early detection of hearing impairments

7 Parents and children should be taught how to prevent ear infections.

8 Hearing impairments may be detected by observations, informal tests, group audiometer tests, and individual (pure-tone) tests

9 For both prevention and correction purposes, all hearing test findings indicating impairments should be followed up.

10. The degree of the hearing impairment and the availability of educational facilities determine the type of educational adjustment. Special schools are provided for the deaf; special classes, for the hard of hearing; and differentiated instruction, for those with mild difficulties

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A readiness test is a useful instrument only in so far as it
measures abilities which are employed in particular reading
programs.   WITTY AND KOPEL (63, pp 182–83)

Basing Guidance on
Learner Needs

Effective instruction is based on two
fundamental principles. first, attainment
of a thorough understanding of learner
strength and weaknesses; second, pro-
vision for guidance in terms of individual
needs. In short, the basic notion is that
the teacher should learn, or know, the
child before attempting to teach him.

This chapter deals with the problem
of determining readiness for reading.
Several approaches to the problem are
considered: systematic observation, use
of developmental history records, read-
ing-readiness tests, intelligence tests, and
informal appraisals of hearing compre-
hension.

Continuous Appraisal. Appraisal of learn-
ing is a continuous function of the teacher
because learning is dynamic. Standard-
ized tests provide indexes to certain types
of achievement, but they are not substi-
tutes for teacher judgments based on
sound observations and the appraisal of
everyday pupil achievement. Regimented
instruction is based largely on cure-all
prescriptions; differentiated instruction,
on learner needs and interests in terms
of his total personality. Growth is the
result of change; hence the need for con-
tinuous appraisal to direct development
in a desirable direction.

Discovering Individual Needs. "Knowing
the learner" means more than learning
about his academic status. This point is
emphasized by Geraldine I Larkin
(37, p. 181):

Teaching today is a challenge Pete's
mother runs a night club with a "gay boy"
revue Sally's father is in an out-of-state jail
waiting trial for murdering a waitress Betty's
parents speak only German in the home and
Jon, the fellow who shouts "Oh yeah? So
what?" as he plops his feet on top of the
reference table, doesn't live in your school
district but is there because he wants to play
football with your school's team. If you know
this about your youngsters, it does make a
difference in your answer to the challenge.

In the final analysis, educational
guidance, or teaching, is the discovery
of and provision for individual needs.
The extent to which this concept can be
translated into practice depends to no
small degree upon the preparation of
the teacher. All good teaching is essen-
tially diagnostic; therefore, the identi-
fication of learner needs and the ap-
praisal of learner growth should go hand
in hand with the developmental activi-
ties. It has been aptly stated that a
teacher should study and understand the
needs of a pupil before attempting to
teach him.

Reading is generally conceded to be
a complex of abilities; therefore no single
test can be expected to reveal the specific

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Identification of Differences. An appraisal of readiness for initial reading instruction is made for very practical reasons The chief reason, of course, is to find out what each child's instructional needs are. Too often, interest in appraisal of readiness for reading has been limited to the screening out of those pupils who are not ready to read. This is only a small part of the job, important though it is To separate the prospective nonreaders from those who apparently are ready for reading is one step in the right direction. The appraisal should also indicate the specific needs of the nonreading groups and of the reading groups. The teacher can expect a wide range of differences in needs among both groups It is this identification of specific needs that enhances the value of an appraisal program

Systematic Observation

In the final analysis, there is no substitute for well-founded teacher judgment in determining readiness for initial reading instruction. No test or other device, including the use of teacher judgment, produced to date is entirely adequate for this purpose. Objective test data should be interpreted with discretion and complemented by teacher judgments. In order to insure sound judgment, however, the teacher should watch herself in making systematic observations and appraisals of pupil growth. This requires a broad grasp of child development problems and the ability to interpret observations in terms of patterns of growth. The following is a guide to observation of readiness for reading. Not all of the items have equal value; therefore, teacher judgment must be used in evaluating the pupils' patterns of behavior. Where possible, observations should be checked by means of standardized tests, such as vision, hearing, reading readiness, and mental tests. This is offered only as a *guide* to the informal appraisal of development.

GUIDE TO OBSERVATION OF READINESS
FOR READING

I. Social Adjustment

A. Attitudes

1. Is the child's wanting-to-knowness sufficiently developed to carry over into curiosities that can be satisfied through reading?

   a Does the child have a genuine desire to read?

   b. Is he interested in books?

2 Does he like his classmates? His teacher?

3 Does he accept authority?

4. Does the child enjoy working with other children?

5. Does he like to share his belongings with other children?

6. Is he courteous in his conversation with others? (That is, does he use courteous forms of speech and is he a good listener?)

7 Does he like to go to school?

8 Does he evidence a desire to do things?

B. Emotional Stability

1. Is the child self-conscious, timid, and generally withdrawing?

2. Is he overaggressive, demanding to be the center of attention?

3 Does he have patience in completing a project?

4. Is he generally happy and cheerful?

5. Is he inclined to cry easily?

6. Is he inclined to use physical force in order to have his own way?

7. Does he exhibit unusual fears or worries on the playground, in the classroom, or elsewhere in the school building?

8. Is he impulsive?

9. Is he inspired to further endeavor after success has been achieved?

10. Is he easily annoyed?

C. Interests

1. Is the child interested in playground games, such as hide-and-seek and tag?

2. Is he interested in drawing and other art activities?

needs of every individual in a class Guidance in reading should be based on the general level of achievement in reading, the capacity for achievement, and the individual needs Both standardized and informal testing procedures are usually necessary to meet requirements for individual guidance

Indexes to language development have been obtained by means of the developmental history, standardized tests, photographic records of oculomotor behavior in reading situations, and subjective tests Expecteds on developmental history records have been validated in many researches, notably those of Baldwin and Gesell Several investigators, especially Miles Tinker, have contributed to professional understandings of eye-movement records Since most subjective or informal testing is usually done in typical reading situations, this type of index to language development probably is quite adequate when done by well-prepared examiners The validity of standardized tests of reading is in need of further investigation

The following story, printed in the *Journal of Exceptional Children* (Dec 1941, p 87), illustrates the variability of achievement by a given individual

Grandfather—"How old are you, sonny?"
Sonny—"That's hard to say According to my latest school tests I have a psychological age of 11 and a moral age of 10, an anatomical age of 7, mentally I'm 9, but if you refer to my chronological age, that's 8 "

Records In a well-organized school where educational guidance is an actuality, cumulative records are found to be indispensable These records—usually kept in an individual pupil folder—include pertinent information, the collection of which began before or with admission to the school system In addition to other data, these folders usually contain a history of progress in the language arts Much time and effort can be saved in securing needed data on pupils experiencing special difficulties at a given

grade level by studying the contents of cumulative records.

An editorial in the December, 1941, issue of *The Elementary School Journal* commented on the development of teacher ability to study child behavior (62, p 242)·

The assembling of the facts about a child which are essential to an understanding of that child requires the acquisition of skills in observing children and in collecting other information These skills can never come simply from reading about them or listening to someone lecture about them; they are skills acquired by practice—a learning by doing Many teachers who have begun to study children have become increasingly aware of the complex nature of human behavior and are seeking guidance in their task

An adequate appraisal program provides evidence of capacity for achievement as well as of achievement. For example, the child may be retarded in vocabulary development but this information on achievement is only a part of the picture; the teacher must secure at least some gross data on the child's capacity for language Low achievement may be caused by general mental retardation, a special language disability, and a number of other factors To avoid working with sheer symptoms, capacity as well as achievement requires appraisal

Readiness Factors The core of a reading-readiness program is language development. Speech habits, speaking vocabulary, control over language structure, interest in visual symbols, curiosity about books and external environment—all these are factors of primary concern to the teacher. Of no less importance in the learning situation are social adjustment, emotional stability, work habits, mental maturity, motor development, and physical health. These are crucial factors which enter into the learning situation in subtle ways that may elude the teacher. In short, readiness for reading must be appraised in terms of the response of the total organism.

10. Does he exhibit initiative in planning and developing an activity?

II. Mental Maturity

A. General Alertness

1. In general, is the child mentally alert? That is, does he contribute to discussions, ask pertinent questions, offer interpretations, and evidence a reasonable memory for past experiences?

2. Can he remember the sequence of events in a simple story or narration?

3. Can he follow simply stated directions?

4. Is he able to reproduce a series of ideas from a story or a discussion?

5. Does he memorize easily?

B. Ability to Relate Language and Experience

1. Does the child's vocabulary appear to be extremely limited?

2. Does he give evidence of a reasonably broad background of information?

3. Does he exhibit reasonable facility in expressing his ideas by means of varied forms of sentences?

4. Can he give a coherent account of an experience? (That is, does he stick to the point and present his ideas in some kind of systematic order?)

5. Is he fairly successful in predicting the outcome of a story?

6. Does he have some ability to organize and classify his experiences?

7. Is he able to make generalizations about a topic under discussion?

8. Does he exhibit some ability in solving problems such as filling in the dialogue for a dramatization, offering suggestions on construction projects, and suggesting sources of information or materials for an activity?

III. Background of Experience

A. Literature

1. Is the child familiar with widely known picture tales, nursery rhymes, fanciful stories, and the like?

2. Does he exhibit an interest in listening to stories, poetry, rhymes, or verse?

B. Information

1. Is the child familiar with certain facts regarding such items as communication, transportation, food, shelter, animals, and birds?

2. Are his notions of rural and urban life adequate for dealing with reading materials?

C. School Experiences

1. Has the child attended school before?

2. Has the school failed to promote him?

D. Home Background

1. Is the relationship between parents a happy one?

2. Do the parents have a wholesome attitude toward the child?

3. Do other children in the home have desirable attitudes toward him?

4. Is the child secure in the home situation?

5. Are his opinions given a reasonable hearing in the home?

6. Is he taught *when* to speak and *when* to listen in the home?

7. Is English spoken in the home?

8. Do the parents co-operate with the teacher?

9. Does either one of the parents read to the child?

10. Has he been given an opportunity to become acquainted with the community?

11. Does he have normal play relationships with other children in the neighborhood?

12. Does he have play materials, such as books, toys, pets, and collections?

13. Are the parents expecting school achievement beyond the child's capacity?

IV. Language Adjustment

A. Speech

1. Is the child's speaking vocabulary adequate for communication about his experiences?

2. Is he free of gross speech defects such as stuttering?

3. Is he free from anatomical defects of the speech organs, such as cleft palate?

3 Is he interested in playing with blocks, construction, and other craft activities?

4 Does he enjoy stories?

5 Does he like to recite poems?

6 Does he enjoy browsing through beautiful books?

7. Does he show a curiosity about signs, labels, and other words?

8. Does he like to make up stories to go with pictures and picture books?

9 Does he bring books from home or ask for books to take home?

D. Work Habits

1. Is the child accepted in group activities by his classmates?

2. Does he respect the rights of others in conversational activities? That is,

does he know *when* to talk and *when* to listen?

3 Does he enter into activities with zest?

4 Can he work on independent projects without disrupting the activities of others?

5. Does he give sustained attention to a given activity or is his attention easily distracted?

6 Does he give his focal attention to directions?

7. Can he follow directions within his understanding?

8 Does he take adequate care of books and other classroom properties?

9. Does he assume his full share of responsibility in the development of an activity?

E. Dentition

1. Is the development of the child's teeth normal for his age?

2. Does he have missing teeth that may interfere with speech development?

3. Are his teeth clean and free from decay?

4. Do his gums appear healthy?

F. Health Habits

1. Does the child have a good posture for sitting and standing?

2. Does he have a normal appetite?

3. Does he secure sufficient sleep? (Or does he come to school fatigued?)

4. Does he enter into and maintain zest for games and other physical activities of the school?

5. Does he have frequent colds?

VI. Motor Development

A. Can the child achieve in rhythm activities involving skipping, hopping, etc.?

B. Can he balance himself on one foot?

C. Does he prefer to use one hand for all unimanual activities such as coloring, painting, cutting, writing, etc.? (Equally important, do the parents and teacher permit the child to use his preferred hand in eating, writing, etc.?)

D. Does he have difficulty in tracing with finger, crayon, or pencil?

E. Does he have difficulty with the manipulation of scissors?

Importance of Early Identification. Early identification of the prospective reading disability case is possible. In the light of the incidence of failures at the first-grade level and the frequency of retardation in reading at all grade levels, the admonition to "begin where the learner is" takes on added significance for those interested in the prevention of reading difficulties. Although the matter of developing a readiness for reading is as important in a high-school history or science class as it is in the primary school, it does present a somewhat different problem for those concerned with prereading experiences and initial reading instruction

Factors in Appraisal A study of the reading readiness of beginners involves (1) an inventory of oral language facility, background of experience, ability to perceive relationships, memory span, ability to make discriminations between word forms, and other specific orientations contributing to mental maturity; (2) an appraisal of the attitudes, desires, drives, and feelings of success which contribute to the emotional well-being of the learner; and (3) an evaluation of the

TESTING CHILDREN WITH USE OF TELEBINOCULAR   *Oswego, N.Y.*

Reading Clinic

The point of this case is that a well-prepared teacher could have identified the cause of the trouble without spending one cent on tests. This could have been done by observation of behavior and a short conference with the mother on his developmental history.

The mother was very understanding and co-operative. She opened the conference with the volunteered comment: "I know that Tommy doesn't have the book-learning ability that my other children have, but what shall we do?"

The developmental history, as given by the mother, revealed the following pertinent information. Tommy sat up alone at seven months. He did not crawl, but stood up alone at ten months. He was walking, unaided, at fourteen months. In short, the development of locomotion was fairly normal.

A few questions on dentition followed Tommy had his first tooth at seven months and his first permanent tooth at seven years. At eight years, he had two permanent teeth. This development was not too far from normal to cause much concern.

Tommy's birth was normal. No instruments were used in delivery. His weight at birth was nine pounds.

The development of bladder control was delayed. While daytime control was established at two and one half years, he still wet the bed at night (nocturnal enuresis). And again, bowel control was not established until he was three years of age.

The boy was unable to dress himself until he was about six. It was still necessary for the teacher to help him button his clothes. At eight years of age he was still unable to tie his shoestrings.

The interesting part of his developmental history is that Tommy learned to talk very slowly. In fact, the mother reported that his grandmother was worried about his speech development. Herein lies the cue to his lack of readiness for reading. He did not make sounds until two years of age. At about three and one half years, he used words. And at about six years he began to use what might pass as sentences. The point is that the teacher was violating the sequence of language development by attempting to teach the child to read before there had been adequate development of speech and its basis, information.

These data were checked against the findings on a five-cent reading-readiness test. (Remember that he had been in the first grade for two years!) On the range of information test, Tommy gave correct responses to only two items. He knew: "What are baby dogs called?" and "What is used to cut a board in two pieces?" In response to, "What does a rubber ball do when you drop it?" he replied, "Busts"; to "How many cents are in a dime?" he answered, "Nickel," and so on. He couldn't "get the hang" of the perception-of-relations test, vocabulary test, memory-span-for-ideas test, or word-discrimination test. For example, when asked to repeat, "Children like to play with dogs and cats," he responded with, "Dogs and tats." Both the findings from the developmental history and the results of the *Van Wagenen Reading Readiness Test* indicated a lack of readiness for reading which was apparently caused by general mental retardation.

For practical purposes, no additional data were required to describe Tommy's case. However, the Revised Stanford-Binet Intelligence Scale, Form L, was administered. Tommy's I. Q. was 53, which indicated a mental maturity equivalent to about four years.

On the following page is the type of form used for a number of years by the writer and his associates for recording interview data on developmental history.

No great amount of skill is required for securing gross information from parents regarding developmental history. However, considerable training is necessary to make a refined use of such information. If the child shows much evidence of retardation, the case should be referred to a school psychologist. When this

vision, hearing, and other items which contribute to the physical well-being of the learner. Other things being equal, the weight given to any one of these factors will depend upon the nature of the beginning-reading program, which varies with the professional preparation and perspective of the teacher, the adequacy of available reading materials, and the administrative policies of the school. In terms of all these items, policies and procedures for the identification of prospective retarded readers can be made.

When tentative groupings are made and instruction is differentiated within the classroom, the teacher is in a position to make continuous, informal appraisals of pupil learnings which are far more essential to pupil success than is the occasional use of standardized tests. For example, during the period of preparation for book reading, the use of experience charts and even commercial charts provides excellent opportunities for the teacher to detect mental readiness for reading. Most reading-mental-readiness batteries make use of word-discrimination tests, but since it is the teacher's obligation to help the pupils develop the ability to discriminate between word forms, she can readily make both a qualitative and a quantitative judgment of each pupil's growth in this respect. A teacher of *children* rather than of sheer *subject matter* guides the learners in terms of their rates of development and their needs.

Development History

An Illustrative Case Tommy had been struggling unsuccessfully with typical first-grade reading activities in a school system where regimented instruction was the order of the day. After the *teacher* had *failed* for two consecutive years with Tommy, she sought advice. A careful description of the program was given. When Tommy was admitted to the first grade he was given, along with thirty-one other pupils, a preprimer. Although

he couldn't pronounce even one word in the preprimer, nevertheless he was taken through primers and first readers during the first year. In this instance the teacher frankly admitted that only she and ten of her pupils really *read* the three basic readers! Since Tommy had demonstrated his inability to read the preprimer, primer, or first reader, he and several other pupils were given the same prescription for a second year. But alas! two years had passed and Tommy had failed to respond to the prescriptions. Something was wrong. What to do?

Tommy's general behavior was somewhat symptomatic of low mental ability. When very young, he had temper tantrums and would throw himself on the floor, kick, and hold his breath. He played alone. His older brother tormented, teased, criticized him, and frequently commented: "I'm a lot smarter." Tommy was quarrelsome with others and could not play their games. His mother reported that he exaggerated, bit his fingernails, wet the bed at night, sucked his thumb, was easily discouraged, worried, was negativistic, impudent, stubborn, arrogant, sometimes over-affectionate, and wept easily. In general, he presented a whole cluster of emotional problems.

Tommy's health was generally good. He had lost no time at school for health reasons. Chicken pox and measles had been contracted without complications or after-effects.

An attempt was made to administer the "Visual Sensation and Perception Tests" of *The Betts Ready to Read* battery. This was unsuccessful because the boy was unable to follow directions or to give the needed responses. For example, he could tell the examiner that the dog was jumping over the pig's back but could not report what he saw on any of the other test slides. His hearing proved to be normal.

The teacher's chief comment was: "Tommy is unable to read. Last fall he knew thirty words at sight, but he has never known more than five since."

The point of this case is that a well-prepared teacher could have identified the cause of the trouble without spending one cent on tests. This could have been done by observation of behavior and a short conference with the mother on his developmental history.

The mother was very understanding and co-operative. She opened the conference with the volunteered comment: "I know that Tommy doesn't have the book-learning ability that my other children have, but what shall we do?"

The developmental history, as given by the mother, revealed the following pertinent information. Tommy sat up alone at seven months. He did not crawl, but stood up alone at ten months. He was walking, unaided, at fourteen months. In short, the development of locomotion was fairly normal.

A few questions on dentition followed. Tommy had his first tooth at seven months and his first permanent tooth at seven years. At eight years, he had two permanent teeth. This development was not too far from normal to cause much concern.

Tommy's birth was normal. No instruments were used in delivery. His weight at birth was nine pounds.

The development of bladder control was delayed. While daytime control was established at two and one half years, he still wet the bed at night (nocturnal enuresis). And again, bowel control was not established until he was three years of age.

The boy was unable to dress himself until he was about six. It was still necessary for the teacher to help him button his clothes. At eight years of age he was still unable to tie his shoestrings.

The interesting part of his developmental history is that Tommy learned to talk very slowly. In fact, the mother reported that his grandmother was worried about his speech development. Herein lies the cue to his lack of readiness for reading. He did not make sounds until two years of age. At about three

and one half years, he used words. And at about six years he began to use what might pass as sentences. The point is that the teacher was violating the sequence of language development by attempting to teach the child to read before there had been adequate development of speech and its basis, information.

These data were checked against the findings on a five-cent reading-readiness test. (Remember that he had been in the first grade for two years!) On the range of information test, Tommy gave correct responses to only two items. He knew: "What are baby shoes called?" and "What is used to cut a board in two pieces?" In response to, "What does a rubber ball do when you drop it?" he replied, "Busts", to "How many cents are in a dime?" he answered, "Nickel," and so on. He couldn't "get the hang" of the perception-of-relations test, vocabulary test, memory-span-for-ideas test, or word-discrimination test. For example, when asked to repeat, "Children like to play with dogs and cats," he responded with, "Dogs and tats." Both the findings from the developmental history and the results of the *Van Wagenen Reading Readiness Test* indicated a lack of readiness for reading which was apparently caused by general mental retardation.

For practical purposes, no additional data were required to describe Tommy's case. However, the Revised Stanford-Binet Intelligence Scale, Form L, was administered. Tommy's I. Q. was 53, which indicated a mental maturity equivalent to about four years.

On the following page is the type of form used for a number of years by the writer and his associates for recording interview data on developmental history.

No great amount of skill is required for securing gross information from parents regarding developmental history. However, considerable training is necessary to make a refined use of such information. If the child shows much evidence of retardation, the case should be referred to a school psychologist. When this

DEVELOPMENTAL HISTORY

Name _____ Case Number _____

Address _____ Phone _____

Interviewer _____ Date _____

Information obtained from _____

Source of Data Baby Book _____ Other Records _____ Memory _____

Performance	Norm	Data	Remarks
I Locomotion			
A Sit momentarily alone	8 mos.		
B Crawl alone	9 mos		
C. Stand alone	15 mos.		
D Walk alone	15 mos		
II. Teething			
A Eruption of temporary teeth			
2 lower central incisors	6–9 mos		
4 upper incisors	8–12 mos		
2 lower lateral incisors	12–15 mos		
4 canines	18–24 mos		
4 posterior molars	24–30 mos		
B First permanent teeth	5–6 yrs.		
III. Elimination			
A. Established bowel control	12–24 mos		
B. Established bladder control	2–3 yrs		
IV. Dressing			
A Buttons clothes	4 yrs		
B Laces shoes	5 yrs		
V. Speech			
A. Sounds			
1. Syllables	6 mos		
2. Da-da, etc	9 mos		
B. Words			
2 words	12 mos		
4 words	15 mos		
C Sentences			
Short sentences	24 mos		
D Gives full name	30 mos		
VI Birth Data			

A Normal _____ premature _____ overtime _____

B Instrument delivery _____ Caesarian section _____ injury _____

C Weight _____

service is not available, the inexperienced teacher can secure additional evidence by administering a reading-readiness test and a group-test of intelligence. It is an unusual situation where more expert service is not available through the state department, county office, state hospital, or a nearby city.

In many instances, mothers record certain data regarding developmental history in a baby book. This is a fairly reliable source. Usually, however, the parents can recall within a period of a month or so, these important events in the child's life. To insure reliability, the parents should be asked to give examples of behavior. For example, specific words used by the child may be recalled. For teacher use, only gross evidence of retardation should be noted.

In 1939, the John Hancock Mutual Life Insurance Company of Boston published Dr. Edgar A. Doll's *Your Child Grows Up* in a small pamphlet. Dr. Doll gives this description of some milestones before the sixth birthday.

> Takes care of self unsupervised, outside own yard, manages roller skates, sled, wagon, velocipede, scooter, or other play vehicle.
>
> Plays simple table games that require taking turns, observing rules, attaining goals, and does so without undue squabbling (Games include tiddledywinks, parchesi, dominoes, etc.)
>
> Goes to school unattended. He may go with friends, but no one is in direct charge of him. "On his own" outside his neighborhood. Learns to print simple words of three or four letters without copy—and his own first name. Does so without direction.
>
> Is trusted with small sums of money to make clearly stated purchases. He carries out directions in returning purchases, but he may not be able to make change.

Teachers interested in pursuing this problem of social adjustment on a more refined basis will find Dr. Edgar A. Doll's *The Vineland Social Maturity Scale* (21) worthy of study. This is published by the Department of Research of The Training School at Vineland, New Jersey. Dr. Doll warns, however, that

"the Scale cannot be used with precision except by duly qualified examiners who will devote at least as much care to mastering the technique as that required for administering the Binet scale."

Those interested in further study of the problem will find considerable help in the references at the end of this chapter.

Reading-Readiness Tests

Since 1930, there has been an increasing number of reading-readiness tests published These devices have been a potent factor in furthering interest in reading-readiness problems First, they have made it possible for the teacher to identify specific strengths and weaknesses in certain areas such as visual and auditory discrimination, background of information, vocabulary, and perception of relationships. Second, the fairly specific nature of tests made it possible to suggest specific procedures for developing certain facets of readiness for reading. In short, reading-readiness testing has stimulated interest in doing something constructive about the problem

Complications in Variable Situations. A reading-readiness test merely provides indexes to reading capacity believed to contribute to readiness for reading. No single instrument has been devised to date to predict reading success for all types of children in all types of school situations. For example, emotional factors may contribute to a low score on a test And again, school situations vary widely. First, the chronological age requirements vary considerably. Some school boards admit children to the first grade at four and one half years of age while others require a chronological age of six years before the first of September. Second, there can be found schools which force all children into primers upon entrance to the first grade. Oftentimes, preprimers or reading-readiness materials are unavailable. Third, there are schools that force all first-grade entrants into the reading of preprimers

without further ado During the first
year all pupils are taken, according to
the calendar, through primers and first-
grade readers so that the *teacher* has
covered the first-grade reading program!
Fourth, another form of regimentation
is found where all pupils are taken labori-
ously through reading-readiness books,
preprimers, and first readers The differ-
ence here is that reading-readiness books
are added to the list of calendar-dictated
items Fifth, in addition to those situa-
tions where the teachers and pupils are
slaves to textbook prescriptions and the
reading program is limited to basal books,
there are those schools in which no basal
textbook is used Sixth, there are also
schools where systematic instruction is
provided on a differentiated basis. These
are only a few of the variables which
beset the trail of one who attempts to
devise a test that will determine readi-
ness for all kinds of children in many
types of situations

USE OF READING-READINESS TESTS

Reading-readiness tests are valuable
instruments for studying children at all
age levels who either cannot read or
have less than second-grade level read-
ing ability. They are used in reading
clinics to evaluate the needs of reading-
readiness cases, nonreaders, and seriously
retarded readers All kindergarten and
primary teachers should be familiar with
the use of reading-readiness tests.

Both group and individual tests of
reading readiness are available. The
group tests are subject to all the limita-
tions of group tests plus the fact that
first-grade entrants have not had much
experience in dealing with pencil-and-
paper tests Group tests are usually
given to small groups of children; that
is, to four to seven pupils at a time. In
general, individual tests should be ad-
ministered to all those pupils rated as
"poor" on the group tests.

Value of Reading-Readiness Tests In
many school situations, the administra-
tion of reading-readiness tests has proved

to be more satisfactory than the giving
of intelligence tests. First, very few
teachers have had the necessary experi-
ence to administer intelligence tests,
especially the *Stanford Revision of the Binet*
or the *Detroit Learning Aptitude Test*. This
situation usually results in no data on
capacity for achievement. Second, teach-
ers can learn to administer a reading-
readiness test in a very short period of
time Third, reading-readiness test re-
sults provide better indications of cer-
tain specific needs than do intelligence
tests. In short, the teacher is better pre-
pared to make use of results of a reading-
readiness test Fourth, reading-readiness
test results are a far safer basis for parent
and teacher conferences than results of
an intelligence test. While the wise use
of results of intelligence tests is recom-
mended, most teachers find reading-
readiness test results more fruitful for
the practical determination of reading-
readiness needs

In their excellent summary of infor-
mation *Concerning Reading Readiness Tests*,
Robinson and Hall brief their conclusion
regarding how well reading-readiness
tests predict reading success (51, pp 3-
4).

The typical (median) correlation between
a reading-readiness test and a measure of
reading success (reading test or teacher's
grades) is .58.

The value of such a correlation in predict-
ing later reading success is illustrated in the
following example Let us assume that both
the reading-readiness and reading achieve-
ment tests produce similar and normal dis-
tributions of scores between zero and 100. If
several pupils each score 50 on the reading-
readiness test, then one can predict that at
the end of the year their reading achievement
scores will *most probably* (50 per cent of the
time) be between 41 and 59 and will *rarely*
(in less than 1 per cent of the cases) be less
than 11 or more than 89 . . . The use of such
a test is thus better than merely guessing
between zero and 100, but its use may still re-
sult in marked errors in the successful place-
ment of individual pupils in reading and pre-
reading groups Certainly such a test should

Rating	RANGE OF INFORMATION	PERCEPTION OF RELATIONS	VOCABULARY (OPPOSITES)	MEMORY SPAN FOR IDEAS	WORD DISCRIMINATION	WORD LEARNING	MID-SCORE
Superior	60 … 53	60 … 53	60 … 53	60 … 53	60 … 53	60 … 53	60 … 53
Good	52 … 48	52 … 48	52 … 48	52 … 48	52 … 48	52 … 48	52 … 48
Average	47 … 39	47 … 39	47 … 39	47 … 39	47 … 39	47 … 39	47 … 39
Mediocre	38 … 28	38 … 28	38 … 28	38 … 28	38 … 28	38 … 28	38 … 28
Poor	27 … 20	27 … 20	27 … 20	27 … 20	27 … 20	27 … 20	27 … 20

Courtesy of Educational Test Bureau   *Minneapolis, Minn.*

not be trusted blindly in the classification of pupils.

With such a correlation, however, one can say that pupils who make high scores on reading-readiness tests will almost certainly learn to read during the first year and those who make low scores will almost certainly fail in reading the first year, but errors may occur in making predictions for pupils who score in the middle *range*.

Gates, Bond, and Russell emphasize the diagnostic values of reading-readiness tests (25, p. 53):

The best reading-readiness testing consists essentially in making an "inventory" of various interests and of the techniques used in reading itself. In principle, testing the reading readiness of a child entering school is the same as testing reading attainments at any later time from the second grade to college. In all cases, the desirable outcome is not merely the general or total score but an expression of the child's status in each of the important abilities entering into reading at the time and shortly thereafter. It is, in brief, a "diagnostic inventory" of actual reading abilities, techniques, skills, and interests similar in general to those used later in the program.

Above is an illustration of a profile chart based on the *Van Wagenen Reading Readiness Test.*

In the appendix at the end of this book, a list of available tests of reading readiness will be found, with sources from which they can be obtained.

In addition to standardized reading-readiness tests published for general use,

TESTING WORD-LEARNING ABILITY

tests and informal materials in basal reading-readiness books for children are provided by the authors of basal reader series It is customary for these materials to be used to appraise readiness for reading in a given series of readers

DIRECTIONS FOR TESTING

Standardized reading-readiness tests of the group type can be administered to children as soon as they are able to use a crayon or a pencil The pupils also must be able to follow directions. Several suggestions should be made at this point regarding the administration of the tests First, a quiet room equipped with suitable desks should be provided. No one should be allowed to enter the room during the test Second, the examiner should establish friendly and dignified relationships with the children. To do this the test group should be small Four to seven children may be tested at one time. If an assistant is available, ten to fifteen children can be tested at one time. Third, personal information called for on the test booklet should be filled

in by the examiner before meeting the children All test equipment, such as pencils and markers, should be distributed with the test booklets Fourth, time should be provided for two or three sittings. Usually about twenty minutes should be the maximum time allowed for each sitting Most of the reading-readiness tests require a total test time of thirty to forty minutes Fifth, gain the attention of the whole group long enough to insure an understanding of the directions The directions should be given verbatim It is always necessary to make sure the pupils are working on the right page Sixth, each test should be timed with a stop watch. This must be done accurately. Seventh, the children should be kept at work. No dawdling should be allowed. Gestures rather than words should be used by the examiner so as to keep distractions to a minimum. Eighth, notes on observations of behavior during the testing should be recorded by the examiner Other things being equal, the skill of the examiner is an important factor in obtaining worth-while test results.

Intelligence Tests

Mental Maturity. To understand a child's capacity, intelligence test data should be made available. While there is nothing magical about intelligence test scores, they are valuable for estimating learning aptitude. Since the myth of the six and one half years of mental age for reading has been exploded, few psychologists or educators would attempt to predict readiness for reading entirely on the basis of an intelligence test score. Mental maturity, however, is one significant factor in reading readiness. A certain amount of mental maturity is essential to success with initial reading activities, but possession of that mental maturity does not insure success.

The intelligence quotient (I.Q.) is determined by dividing the mental age (M.A.) by the chronological age (C.A.). Bernreuter and Carr (3, p. 312) interpret an I.Q. "as a numerical expression of the *rate* of intellectual development" and an M.A. "as a numerical expression of the *amount* of intellectual development."

In 1916, Terman (59, p. 140) assumed that 16 years was "the point where intelligence attains its final development." In 1937, Terman and Merrill (60, p. 130) disregarded chronological age above 16 years but began "to disregard increasing fractions of successive chronological age increments" at age 13.

In 1916, Terman (59, p. 79) suggested the following classification of intelligence quotients:

I.Q.	Classification
Above 140	"Near" genius or genius
120–140	Very superior intelligence
110–120	Superior intelligence
90–110	Normal, or average, intelligence
80–90	Dullness, rarely classifiable as feeble-mindedness
70–80	Border-line deficiency, sometimes classifiable as dullness, often as feeble-mindedness

In the 1916 edition of the *Stanford Revision and Extension of the Binet-Simon Scale,* Terman (59, p. 66) presented the following distribution of I.Q.'s for 905 unselected children, 5 to 14 years of age.

DISTRIBUTION OF I.Q.'S

I.Q.	%
136–145	.55
126–135	2.3
116–125	9.0
106–115	23.1
96–105	33.9
86–95	20.1
76–85	8.6
66–75	2.3
56–65	.33

Merrill (41, p. 650) presents a distribution of composite scores for Forms L and M with suggested classification.

REVISED STANFORD CLASSIFICATION

I.Q.	Per cent		Classification
160–169	0.03		
150–159	0.2	1.33	Very superior
140–149	1.1		
130–139	3.1		
120–129	8.2	11.3	Superior
110–119	18.1		High average
100–109	23.5	46.5	Normal or average
90–99	23.0		
80–89	14.5		Low average
70–79	5.6		Borderline defective
60–69	2.0		
50–59	0.4	2.63	Mentally defective
40–49	0.2		
30–39	0.03		

INTERPRETATION OF RESULTS

Users of intelligence tests should be cautious in their interpretation of the results. A distinction should be made between group tests and individual tests of intelligence. The term I Q. has been used quite generally for showing the ratio between mental age and chronological age (That is, I.Q. equals the M.A divided by the C.A.) To differentiate between the results of group tests and individual tests, it has been suggested that I.Q. should be retained to designate the results from an *individual* test and that P.L.R. (Probable Learning Rate) should be used to designate the results from a *group* test Users of intelligence tests should discriminate between the results of the two general types of intelligence tests if adequate evaluation is to be made.

Care should be exercised in the interpretation of individual tests of intelligence. The Terman, Kuhlman, and Herring revisions of the *Binet-Simon Intelligence Scales* contain items which place some emphasis on language. On the other hand, performance scales, such as the *Arthur Performance Scale, Coxe Performance Ability Scale*, and the *Pintner-Patterson Performance Scale*, are nonverbal, or nonlanguage The second type of instrument is especially valuable for studying pupils with language handicaps

In a discussion of nonverbal tests, Garrett and Schneck commented (22, p. 96):

> The non-verbal or non-language group test was devised primarily with the idea of providing a substitute or equivalent for the verbal test where the latter is inadequate In deciding whether a child is mature enough mentally to enter the first grade, in selecting and classifying children in the early grades before facility in written language has been acquired; and in vocational problems where illiterates or near-illiterates are to be dealt with, the non-language test fills a real need

On the use of intelligence tests, Macomber offers some excellent advice (40, p 272)

An intelligence test should be administered to each child every few years If possible, every pupil should be tested soon after entry to the kindergarten or the first grade. The individual intelligence test is far superior to the group test in the early years of school, and it should be utilized at this time. The child should be tested again in the intermediate grades, in the upper grades, and in high school The test data should be entered on a cumulative record, so that the teacher or the special counselor will have access at any time to all test results for each pupil.

Confidential Nature of Tests. Information regarding scores on intelligence tests should be kept strictly confidential. Certainly such data should not be available to the public, including the parents. Posting intelligence scores on the bulletin board or otherwise giving out the information should be prohibited. Only those teachers who are highly professional in their attitudes and in the use of this type of information should be given the data. Well-prepared and professionally minded teachers will use these data for improving their guidance function.

A list of tests useful in the appraisal of intelligence will be found in the appendix at the end of this book.

Expectancy of Achievement. There is some evidence that normal or even superior individuals with a specific disability in reading have been rated dull because they were tested with a "reading" test of intelligence which verified an erroneous suspicion. When reading ages (taken from standardized tests of reading) are compared or contrasted with mental ages, a number of pupils with average reading ability have been found to be retarded two, three, and four years in terms of their capacities to achieve A seventh-grade pupil may be achieving at an average seventh-grade level but may be retarded in the sense that he has the mental capacity to achieve at the twelfth-grade level. In such cases, the pupil may not be progressing at a more rapid rate because the teacher may be failing to challenge him with higher-

level materials, he may be struggling under a physical handicap, or he may lack the necessary emotional maturity. The purpose, then, of securing a general index to the potential capacity of the learner is to determine whether or not the child is mentally mature enough to profit from reading instruction and, if he is, to gain some information *as to expectancy of achievement*. Although reading is primarily a thinking process, factors other than intelligence also appear to be essential to successful achievement. About twenty per cent of the school population probably are not equipped mentally to achieve in reading at a level which is considered average for others of the same chronological age, while another twenty per cent probably have the mental equipment to achieve more than that expected of the average. It is, therefore, important that an index to the capacity of the learner should be secured by means of an intelligence or learning aptitude test which does not place a premium on reading ability.

Hearing Comprehension

Another no-cost means for obtaining an index to a child's readiness for reading is a hearing-comprehension test. Most elementary-school teachers make some use of an informal reading inventory, or book-level test, to determine level of reading achievement and to appraise needs at the instructional level. This is done very easily by having the child read from a graded series of instructional materials—usually basal readers. By turning the table and reading to the child from primary-grade materials, the teacher can check the child's comprehension of the material read to him and thereby obtain useful information on hearing comprehension.

Comprehension, an Index. In making a test of hearing comprehension, the teacher assumes that the child's ability to comprehend information—or story-type material—read to him is an index

to reading capacity. This is a fairly safe assumption because a six-year-old with normal hearing should be able to comprehend oral language with greater facility than he can deal with visual symbols. If a child cannot understand what is read to him, then he is unlikely to be able to overcome the added burden imposed by visual symbols.

Materials Available. The materials for this informal appraisal of hearing comprehension may be taken from a graded series of basal readers, science books, social science books, or current events newspapers such as *My Weekly Reader.* A more satisfactory appraisal may be made if both story-type and factual-type material is used. Materials from the preprimer, primer, first-reader and second-reader levels have been found to offer a sufficiently wide range of difficulty. Because of the limited vocabulary, preprimer material is the least satisfactory. Any carefully graded material commonly found in first-grade classrooms can be used for this purpose.

Comparisons between children can be made more readily if the teacher builds a test over one page of material at each level. One page of material at each level provides a fairly adequate basis for making observations. The test questions should be clearly stated. Factual questions can be used to detect background deficiencies and retention of details. At least one question at each level should be aimed at the child's vocabulary control. One or two inferential-type questions should be used to test the child's ability to read between the lines and to perceive relationships. *In general, five or six questions should be developed for each test selection.*

Procedure. The procedure is a relatively easy one to follow. The teacher reads from the lowest level material first and checks on hearing comprehension by means of the previously prepared test questions. Each succeeding reading level (i.e., primer, first reader, and second

reader) is handled in like manner. When the comprehension level drops to about fifty per cent, the hearing-comprehension, or reading-capacity, level has probably been exceeded. The highest reading level at which about seventy-five per cent comprehension was achieved may be recorded as the probable hearing-comprehension level.

As the teacher acquires skill through repetition in administering this type of reading-readiness test device, additional information will be obtained. For example, the sentence structure and vocabulary employed by the child in answering the questions and discussing the story or information provide an index to the pupil's language facility and mental alertness. These teacher observations can be carried over into group and class activities.

A hearing-comprehension test of the type described above is useful for screening out the mentally immature and for discriminating among the abilities of those who appear to have at least language readiness for initial reading instruction. The type of information obtained, of course, cannot be substituted for standardized test data. Nevertheless, the technique has the advantages of being inexpensive and practical. (See Chapter XXI: Discovering Specific Reading Needs.)

Summary

In this discussion, an attempt has been made to justify the appraisal of readiness for reading as a part of an educational program, to summarize information on the use of standardized tests, and to give specific suggestions on the informal appraisal of readiness. It has been assumed that the teacher is working with the whole child, because the adjustment to language situations is only one of the many adjustments a child must make in school. Overemphasis on reading instruction for six-year-olds has been reduced not by a tirade on the evils of requiring all children to attempt the process but by calling attention to other equally important facets of development.

There are children all the way through the elementary school who for one reason or another are not ready for systematic reading instruction or have not learned to read. Teachers at all levels, then, are concerned not with prediction but with an analysis of reading-readiness needs. By and large, lack of readiness is not something which requires the teacher to stand idly by until the propitious moment arrives. Instead, the teacher can do something positive about the situation if she has the tools and techniques to locate the difficulty. This discussion is centered on the problem of analyzing reading-readiness needs.

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Developmental Activities and Materials

That the school has a definite responsibility in a program designed to develop a readiness for reading is commonly accepted. Merely waiting for such development is not sufficient.
DELIA E. KIBBE (31, p 10)

Guidance *versus* Prescription

Certain aspects of reading readiness are brought about by inner maturation; other aspects, by guidance Both nature and nurture as general factors in reading readiness must be recognized. This chapter will deal with that aspect of readiness brought about by nurture

In general, readiness for reading can be developed. Exclusive of those with mental and certain physical handicaps, most pupils can profit from systematic preparation for initial reading instruction. If the emphasis is to be placed on *preventive* measures, then the teacher should provide for a gradual transition of the child from his world of facts and oral language to the situation in which he must deal also with visual symbols This transition requires orientation in order to avoid bewilderment.

Not only must a reading-readiness program provide a broad grounding in the realities of life and in dealing with an oral language structure that squares with actuality, but also that program must deal with certain specifics that have an immediate bearing on reading. In the past, some educators may have been guilty of overemphasizing the so-called general aspects of readiness. The emphasis should be on the *reading* aspect of reading readiness The teacher cannot purchase for her pupils any one book that will develop readiness for reading.

While there are fairly specific skills, abilities, attitudes, and information to be developed in preparation for initial reading activities, the teacher must keep in mind that these are highly inter-related. For example, background of information and language facility are complementary in nature From a review of the literature on child development, it is clear that speech development precedes reading. In view of this it is clear that auditory discrimination among speech sounds, at first, should precede the development of visual discrimination among printed symbols. Later in normal development, visual discrimination and auditory discrimination should be developed so that they re-enforce each other. From these brief examples, and others, it follows that reading readiness is a mosaic, or a complex pattern of learnings.

Appraisal of pupil development is a continuous responsibility of the teacher. Each day new adjustments are required of the pupils. As these changes take place, the teacher's guidance problems shift. Reading readiness is not something that each child does or does not have; instead, it embraces the sum total of experiences that gradually blend into learnings that permit "the reconstruction of

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the facts behind printed symbols." The administration of a reading-readiness test or the taking of an individual readiness inventory at some stated time in the child's life does not fulfill the appraisal responsibilities of the teacher. Appraisal of needs is an everyday and an all-day task for the teacher, it is a part of a well planned guidance program

Suggestions given herein for the development of readiness for initial reading instruction are not to be regarded as *prescriptions* to be administered to all pupils These suggestions have been summarized as *guides*. Potent factors to be considered in using these guides are the types of children admitted to first grade and local conditions

Duplication of suggestions for developing reading readiness is inevitable because the various aspects of development are so inextricably associated I or example, labels may be used to teach children to associate meaning with symbols, and to develop visual discrimination, a trip to the city library may contribute to background of information and stimulate a curiosity about books and a desire to read, and so on This interrelationship between abilities places education above a prescriptive, or mechanical, level and is one of the chief challenges to able minds

The Nature of Reading Readiness. For discussion purposes, reading readiness can be considered from two points of view; readiness for initial reading instruction and readiness for the reading of a given unit of material The first deals with the orientation of children for successful participation in beginning reading activities The second has to do with instruction and other pertinent considerations relative to an individual's adequacy for interpretation of reading materials at all school levels, including adult education This discussion is aimed primarily at the approach to systematic instruction in reading, keeping in mind the fact that readiness for systematic instruction implicates the three facets of the whole organism

In 1936, Dr. Nila Banton Smith wrote {15, p. 61):

When we speak of "reading readiness" we usually refer to that stage of maturation which a child has attained when he is ready to enter into the task of learning to read This readiness, or ripeness, for undertaking beginning reading has been a matter for very little consideration. Very recently, however, much discussion and investigation have been centered in this important aspect of reading instruction

Readiness for learning is a basic notion in modern education that is tending to lay bare some of the fallacies of regimented "education." Calendar-dictated education is being superseded by guidance in terms of individual needs. What instruction, or guidance, will be given at a stated time is being evaluated on the basis of interests and needs rather than on the basis of what an author has written in a basal textbook. For example, children in a modernized school are not forced into reading activities upon admission to the kindergarten or first grade or upon the attainment of a given chronological or mental age. Neither are they given instruction in word analysis, or phonics, on the eighteenth week of school or after they have reached page sixty in the primer. Instead of regimented and calendar- or author-dictated instruction, certain criteria are established for determining readiness for a given learning activity. For example, a given pupil's readiness for initial reading instruction is appraised in terms of a number of interrelated factors General mental alertness, background of experience, language facility in communicating about experiences, emotional and physical well-being, social adequacy, interest in reading, and the like are weighed by the master teacher. The fairly recent emphasis on readiness for learning has spotlighted differences rather than likenesses, has validated differentiated instruction rather than regimented instruction, and has directed attention to professional qual-

ment and adventure, any normal child will become interested in learning to secure access to similar sources.

Ability to handle books. A fine collection of children's books—picture books, illustrated story books, books of verse, properly used enables a child to learn to handle them "without having to think" before he reads

Essential reading techniques Such techniques as turning pages, exploring the left page before the right, surveying the page from left to right and from top to bottom by lines (of pictures or words or both) can be developed before the child actually reads any words

Validation of the Readiness Program. The reading-readiness program must be validated in terms of the goals of reading instruction as they are related to whole-child development. This validation requires professional reflection on the nature of reading in relationship to the *preparation of pupils* for systematic instruction in reading This problem has been summarized in the *Guidebook for Teachers* prepared by Betts and O'Donnell (3, pp. 8–9):

Reading is primarily a *thinking process* What shall be done about preparing pupils for reading obviously depends on the teacher's concept of reading.

If reading were a word-calling process, then a readiness program probably would deal entirely with speech production and the visual perception of word forms On the other hand, if reading were a memorizing process, then the preparatory program would be delayed until the child had a certain definable minimum memory span, and attention would be focused upon effective techniques of memorization. In either of these cases, not all pupils would be ready at a given age.

But reading still remains a complex of abilities requiring a fairly high degree of mental, emotional, and probably physiological maturity. A concept of reading is outlined briefly in the following statements:

a. Reading calls for specialized types of thinking processes hence, a certain degree of mental maturity is essential to success with reading activities.

b. Reading necessitates taking experience *to* as well as drawing it *from* the printed page;

therefore, a background of pertinent experiences is one prerequisite to achievement.

c Reading is, in part, an *interpretative* process, and it is for this reason that one is really reading when understanding is gained from facial expressions, pictures, charts, graphs, diagrams, and blue prints, as well as from word symbols on signs and in books.

d Reading deals primarily with meanings, not with forms, therefore, the mechanics of visual and auditory discrimination rank well down the scale of relative values.

e Reading is experiencing, not memorizing, therefore, the learner must develop the ability to apply or relate pertinent past experiences to his immediate ones, and in many instances to arrive at new ideas and concepts on the basis of the past

f Reading is a process which calls for integrated action As such, it is more than the sum-total of eye movements, visual perception, selecting and using pertinent experiences, perceiving relationships, and the like, because the mental, emotional, and physical responses must be patterned into a purposeful and satisfying total reaction

g Reading is a process, not a subject. In view of this, a teacher may be able to help the child to develop basic skills, abilities, and attitudes at times set aside for basal reading instruction; but it is even more important that the teacher at all times should be a teacher of reading, not alone in the period reserved for basal reading instruction.

h. Reading situations vary with the purpose or motive of the reading; therefore, an efficient reader must be versatile in adapting his habits to meet the needs of a given situation. In one situation science material is studied to obtain detailed instructions for an experiment, while in another a literary production is read for sheer enjoyment. The first situation provides opportunities primarily for intellectual growth; the second, for emotional development.

The purposes of the reading-readiness program have been very ably listed by Miss Maude McBroom (40, p. 258):

(1) The school's basic purpose in this phase of the program is to find out whether the child is physically, mentally, socially, and emotionally mature enough to begin reading, and to set up an environment in which natural growth may best take place. (2) The school will also attempt to discover any handicaps

h Clearing up any mispronunciations, poor enunciation, or false concepts of words

i. Giving the child who does not speak English some fluency in using the language

j Stimulating a desire to read

Reading Readiness and Reading Goals

The goals of reading instruction as well as the specifics of the reading program should dictate the nature of the reading-readiness activities It will be granted that not all activities for five- and six-year-olds who are being prepared for reading instruction are directed toward reading or larger language goals Reading is only one approach to learning, only one of the many complex types of adjustments the child must make to life. The development of basic reading skills, abilities, attitudes, and information is rooted in the reading-readiness, or preparatory, period.

First, it is essential for individuals at all age levels to know when their needs

BUILDING THEIR COMMUNITY

John Van Duyn School   *Syracuse, N.Y.*

of hearing, vision, speech, or motor ability, and begin suitable treatment, to locate and attack any problems in adjustment, such as extreme shyness, insecurity, fear of failure, emotional instability, and poor attention, and to discover any unusual cases of motor inco-ordination or poor memory (3) The third purpose of this initial period will be actually to develop greater readiness for reading by such approaches as the following

a Increasing firsthand experiences in order to build up clearer basic concepts back of words and ideas

b Building up and clarifying the child's speaking vocabulary

c. Giving the child some experience in expressing ideas in clear sentences

d. Accustoming the child to the fact that symbols stand for ideas

e. Acquainting the child with the physical make-up of a book, and with the left-to-right progression of symbols across the page

f Giving some practice in seeing likenesses and differences in words

g Accustoming the child to working with other children and to giving attention in a group

ganization of information comes into play in several types of situations. Pupils are organizing shared information when they dictate to the teacher for recording on the blackboard their notions about airplanes, pets, and other topics which they are preparing to study systematically. Organization ability is being developed when questions to be answered are dictated and used as the purposes for the study of a given unit. Organization is brought into play again when the unit is summarized by means of experience records (reading charts), a program, and the like. The organized use of information is apparent in developing the sequence for an orange-box movie, in preparing a dramatization, in use of proportion in a drawing of pilot and airplane, and so on. In all these instances, revisions may bring about more pupil development than the original planning. Organization permits the final relating of information to the problem.

Fifth, comprehension and retention of information, outcomes of effective instruction, is one of the primary goals of reading instruction and, therefore, is of major concern to the teacher in charge of reading-readiness activities. At the prereading level, power, depth and accuracy of comprehension are developed by means of worth-while experiences with facts, oral language activities, and pupil organizations of information (dictated to the teacher or otherwise). It becomes, then, the duty of the teacher to provide a wide range of experiences, varying from the direct to the vicarious, to see that pupils have opportunities to solve problems and relate facts; to make use of pupil experiences for extending and refining vocabulary (i e , to know what words stand for); to capitalize on opportunities for developing sentence sense and for organizing sentences in meaningful sequences; to develop correct speech habits; to give some practice in selecting the essentials for remembrance; and to promote strong motives for reading The period of preparation

for systematic instruction in reading is the time to begin building the foundation of comprehension.

All teachers, from kindergarten through college, should keep in mind the goals of reading instruction, particularly the teacher who guides beginning readers. These goals have been discussed in detail in Chapter VI. In preparation for the discussion of developmental activities and materials, they can be briefly enumerated as· (1) to know when needs can be satisfied through reading; (2) to know how to locate information pertinent to a given problem; (3) to know how to select and evaluate information; (4) to know how to organize and apply information for retention and for communication to others; and (5) to know how to improve comprehension and retention of information The relative importance of these basic skills, abilities, attitudes, and information varies with the needs of the learner.

Interest

Power of Interest. Interest is a potent factor in the development of readiness for learning. Some children read materials super-charged with interest that in terms of vocabulary, sentence length, and the like might present insurmountable problems. It is not uncommon for a fifteen-year-old boy who cannot read a preprimer to organize, dictate, revise, and later, through the intensity of his interest, read material that would challenge the reading ability of his contemporaries Interest is not always stifled by the magnitude of the task.

One of the chief basic considerations in reading instruction is that of developing desirable attitudes toward reading activities The correction of reading difficulties usually calls for the revision of learner attitudes In fact, one of the emphases in corrective or remedial reading is on the development of virile attitudes of approach as substitutes for atti-

can be satisfied through reading Since this is a major goal of reading instruction, it automatically becomes a major goal for the teacher who provides guidance in reading readiness The child cannot be taught to read "reading" at a given hour in the day because he reads literature, reads and studies science, and so on Reading is a process, not a subject Hence, reading ability is the basis of most school activities, and, therefore, should be developed in a manner that permits the child to acquire it as naturally as he learned to talk. For sheer pleasure, the child is taught to turn to story books, poetry, and verse. To solve problems, he is taught to read for information which may take him to a globe, an encyclopedia, a science book, and so on Reading interests first appear before systematic instruction is initiated and requires nurture throughout the child's school career. The teacher who knows how to provide systematic guidance in reading readiness keeps in mind this goal of knowing when needs can be satisfied through reading

Second, location of information in books, newspapers, magazines, and the like, is a goal of reading instruction and a natural development for an inquiring young mind With a teacher alert to the objectives of reading instruction, the five- and six-year-old can be led to a curiosity about books and a desire to read quite as naturally as he learned to talk Before the child can gain insight into reading as a social tool, the teacher must have clear notions of socialized reading situations The school library or the local library should become a source of pleasure and information for children during the reading-readiness period Whether or not a school, city, or county library is available, the reading corner, or center, in the classroom should whet the reading appetites of children While obviously it is not desirable to emphasize specific location of information skills and abilities during this reading-readiness period, it is during this time that attitudes, information, and certain elementary skills are brought into bud. At certain times, the teacher can demonstrate her ability to find stories, poems, verse, and information At other times pupils are attracted to the reading table for browsing and the study of picture books. Finally, location of information is a basic goal of reading instruction; therefore, it must have its beginnings in a reading-readiness program

Third, the selection and evaluation of reading matter are major goals of reading instruction that, therefore, becomes a basic element in a reading-readiness program It is not enough to teach *when* to read and *where* to find the information. From a number of sources, pertinent material must be selected For example, the price that children place on a given commodity in their class grocery store cannot be obtained by a visit to one store because prices vary Likewise, opinions about bears, for example, vary widely. Not long ago, story books contained statements about bears that did not square with scientific facts. When a child reports erroneous information during a discussion period, he may be "called" by one of his contemporaries or his report may be questioned by the teacher. Verification requires the selection of appropriate sources and the evaluation of the information in terms of the point in question While the children may not be able to do the actual reading themselves, they can, through adequate guidance by an alert teacher, be started on their way to critical appraisal of what they read

Fourth, the organization of information is a basic goal of reading instruction that contributes to comprehension, retention, and action upon the basis of the information. Since organization of information is a basic element in reading ability, it must have its roots in the reading-readiness program, i.e., children must be prepared to organize for use what they glean from reading. During the reading-readiness period, the or-

thinking and practice. For example, regimented classroom instruction has precluded rich possibilities. Furthermore, some of the attempts to break the lock step and to experiment with differentiated instruction have failed to capitalize on learner interests. Sometimes, where recognition has been given to interests, a narrow concept of interest as only a specified motivation has produced impoverished results. It is encouraging to note, however, that the trend toward a larger view of interests in the classroom is unmistakable.

Validity of Interest. Examples of the validity of the interest approach to reading instruction are numerous. Esther, a reading clinic case, had an unusual interest and ability in arithmetic in spite of her reading disability In view of this interest, the teacher selected an attractive series of primary-grade number story books for the remedial activities. Esther's progress in development of serviceable basic reading skills justified the means. Vincent was intrigued by anything pertinent to general science. Capitalizing on this interest, the teacher directed his developmental reading activities in terms of a set of primary-grade science books. In each case, the reading activities extended beyond the confines of the basal materials. In these, and other cases, the interest approach has proved to be fruitful

Interests and Teacher-Pupil Rapport. Undoubtedly there is a relationship between teacher understanding of pupil interests and teacher-pupil rapport. Both teacher-pupil rapport and rapport among pupils are based on the sharing of interests and on the development of a community of interests.

Study of Interests. "Begin with the interests of the learner" is a fundamental principle of instruction It is a wise teacher who inventories the interests of her children because this permits her to take an important step toward the establishment of rapport in the larger sense. However, an inventory of interests is only part of the problem First, some differentiation must be made between transitory and permanent interests. Second, these interests are only starting points. The chief challenge lies in the development of further worth-while interests

PREPARING FOR A DRAMATIZATION

Public Schools   *Rochester, N.Y.*

INTEREST IS A POTENT FACTOR.

Benjamin Franklin School   *Bloomsburg, Pa.*

tudes of withdrawal In short, attitudes are inextricably tied up with enlisting learner effort, or motivation.

Rapport, between teacher and learners and between learners, is based in part upon a recognition and an understanding of individual interests Interests comprise a significant factor in the establishment of rapport in a given situation

John Dewey has pointed out the various meanings of the term interest (13, pp. 16–17):

Interest is first active, projective, or propulsive We *take* interest To be interested in any matter is to be actively concerned with it Mere feeling regarding a subject may be static or inert, but interest is dynamic. Second, it is objective We say a man has many interests to care for or look after. We talk about the range of man's interests, his business interests, local interests, etc. We identify interests with concerns or affairs Interest does not end simply in itself, as bare feelings may, but is embodied in an object of regard Third, interest is personal; it signifies a direct concern, a recognition of something at stake, something whose outcome is important for the individual It has its emotional as well as its active and objective sides Patent law or electric inventions or politics may be a man's chief interest but this implies that his personal well-being and satisfaction is somehow bound up with the prosperity of these affairs

Although many reports of investigations, articles, and books dealing with interests have been published, insufficient attention has been given to the everyday study and development of interests Some significant work has been done in this direction, but certain misconceptions and malpractices have impeded

more real the history, the more substantial the geography, the more vital the curriculum is as a whole, the greater the interest will be. There are many advantages in founding instruction on intrinsic interests. They have greater probable appeal than extrinsic motives, are more sincere, more permanent, and more likely to make clear to the student the real reasons for the study of any problem or topic. These fundamental interests are valuable, moreover, as bases in selecting and emphasizing the data essential to the solution of the problem at hand. It would seem reasonable, therefore, to demand that students be given at least an intellectual appreciation of the significance of the work that they are to undertake.

An individual may exhibit a lack of interest in a given reading situation for a number of reasons. Some of them may be enumerated as follows:

I. The material may not be suitable.

   A. Too difficult

   B. Too meager to satisfy needs

II. The background of learner experience may be inadequate.

III. The purpose of the reading activity may not be clear to the reader.

   A. The goals may be dictated entirely by the teacher.

   B. The course of study may be viewed by the teacher as a prescription for *all* children rather than as a guide.

IV. The needs of the learner may be defaulted

V. An overemphasis may be placed on required reading

VI. Library facilities may be inadequate.

VII. The mechanics of the process may be overemphasized.

VIII. The lack of physiological and emotional readiness for learning activities may characterize the situation

IX. Extrinsic devices may be overplayed by the teacher to the extent that the activity may lack intrinsic value.

X. Instruction may be based on transitory, or momentary, interests which fail to carry through for the learner.

One of the statements often repeated in discussions of reading instruction is: Begin where the learner is. This has im-

plications in the appraisal program, in the selection of materials, and, not least of all, in those procedures dealing with motivation.

Development of Interests. In regard to the status and development of interests, Kilpatrick points out (32, p. 49):

> But we must start where the child's interests now are, help him to choose the best among them, and then help these to grow into something better. Many teachers, wilfully, will not have it so. They still insist on beginning with subject matter. Their danger is that by suppressing the child they develop the bad instead of the better. Children used to the old dictation-of-subject-matter-from-above, like pathologic cases everywhere, require careful treatment, but tact and wisdom along better lines will usually pay in increased dividends.

Unwise expenditures of school funds for basal readers has done much to impoverish the reading interests of school children. As a result, learning-to-read has been overemphasized and the reading-to-learn approach has been defaulted. A careful appraisal of the basic needs of children should result in the selection of not only basal readers but also worthwhile books representing a wide range of levels of readability and of worth-while interests Lazar (37, p. 104) suggests: "Too much prescribed reading may be unwise or even harmful."

Some of the instructional problems in the development of reading interests may be summarized as follows:

I. The analysis of individual interests

II. The broadening, extending, and enrichment of reading interests

III Development of pupil ability and taste in the selection and evaluation of reading materials

IV. Providing encouragement and guidance for parents in the selection of reading materials for the home

V. Balancing the reading program

   A. Balanced recreational and informational reading program

   B. Balanced recreational reading program

William Heard Kilpatrick emphasizes the integrative value of interest (32, p 49)

> By interest in any full or desirable sense we mean that the child as he faces an actual situation is so unified within that he is, as we say, centered on the thing at hand Positively he is stirred to act zealously, negatively he is not so divided within as to be unable or unwilling to give himself intently and determinedly to what he is doing

When a new center of interest, or unit of work, is approached systematically, orientation is required. The development of readiness is as essential for the teacher as it is for the learner, because she must make some systematic appraisal of interests. The subsequent development of interests is based on the results of this first analysis

Witty and Kopel have emphasized the need for entertaining a broad concept of interests (53, p 2)

> It must not be assumed, however, that increased attention to the interests, attitudes, and emotions of the developing child will imply that our primary interest is to promote better acquisition of the fundamental skills through improved motivation Too frequently this objective has occupied the thought of the teacher For example, in the experimental literature one finds accounts of how increased efficiency is produced in memorizing facts, in typewriting, and in learning various number combinations through the shrewd use of rewards or by employing praise or by stimulating attainment in other ways Our objective does not center in the acquisition of any particular body of subject matter or set of skills, instead, our interest is concentrated in the production of well-rounded, self-reliant, self-directing individuals whose total behavior reflects the integrated expression of many drives to human action Reading, for example, is valued only insofar as this one area of experience contributes at all times to the achievement of wholesome personality, growth, and orientation

Use of Interests. Interests provide an index to intellectual virility, emotional maturity, and experiential background.

Probably they can be studied and developed best by means of informal, systematic procedures. Properly directed class and group discussions should be one fruitful means of identifying, sharing, extending, and deepening interests. Observation of recreational activities should provide other significant clues to interests.

In this sense, reading instruction becomes a perennial problem rather than one to be solved at once and for all at a given time or grade level. Furthermore, these interests among children at a given age or grade level may be expected to vary widely because previous experiences, potential capacity, and the like produce a wide range of levels of emotional maturity

Evaluation. The teacher should be in a position to evaluate interests in order to direct them intelligently They may be transitory, or whims and impulses of the moment In fact, the less mature the learner, the more likely are his interests to be immediate. Maturity should result in substantial interests characterized by social worth-wholeness, increased complexity, and permanence. Transitory interests may be trivial and lack social value

Discussions of children's interests lead to the consideration of rapport, learner literacy regarding needs, wishes, satisfactions, attitudes, motives, goals, preferences, and general interests. In terms of materials, the study of reading interests calls for the investigation of qualities of reading material, interest elements in prose and poetry, and the physical make-up of books And, not least in importance, is the problem of developing reading interests and elevating tastes

In discussing the relationship of interests to methods of instruction in the social studies, Horn comments (28, pp 504–505):

> The basic appeal to interests should be made through the intrinsic values of the subject matter rather than through the use of such extrinsic appeals as grades, avoidance of penalties, or pedagogical devices The

VII. Orient the learner for the initiation of a new unit of work.

A. Relate the anticipated experience with previous learner experiences.

B. Prepare for development of a new center of interest by means of concrete experiences.

C. Summarize and organize class information regarding the new unit.

D. Organize pertinent questions to be answered through reading.

VIII. Insure the learner's understanding of the purpose, or purposes, of the reading activity.

A. Provide opportunities for the selection of reading materials to satisfy individual needs.

B. Provide intrinsically worth-while activities.

C. Provide activities which have significance to the learner.

IX. Subordinate the mechanics of reading to the semantic aspects.

X. Provide a browsing corner, or library center, in the classroom.

XI. Provide materials that will tend to stimulate and broaden interests.

Excellent advice is offered the teacher by Miss Lula Wright in her book on *Units of Work: A First Grade at Work* (55, p. 11):

In planning the year's program, the classroom teacher must know what the predominating interests of the children living in this particular environment are likely to be. She must choose from among these interests those that are socially most worth while developing, for a special age group. She must have investigated and continue to investigate possible excursions in the neighborhood for carrying on these interests. She must know some of the books, pictures, songs, and stories to turn to for aid and continue in her search for ever better ones. She must be provided with the material necessary for such activities as experimentation, investigation, building, and construction. A thing of paramount importance is that the teacher's own interest and enthusiasm in the study carried on be kept alive and growing by further research and study. It is in proportion as she is able to keep her own interest in the children's de-

velopment through the work being carried on that she is able to give inspiration and help.

The Kindergarten

Contribution of the Kindergarten. The establishment of kindergartens appears to have been a significant factor in developing readiness for learning In general, the kindergarten can contribute to reading readiness in two ways: First, carefully and wisely guided kindergarten children have opportunities to gain experiences and work habits that permit better adjustment to first-grade situations. Second, where kindergartens are accessible, parents are not likely to urge the admission of five-year-olds to the first grade. It should be pointed out, however, that the mere establishment of a kindergarten is not the final solution to an educational problem. Policies regarding admission, selection of the teacher, and the nature of the educational program therein dictate the outcomes.

In 1937, Dr. J. Cayce Morrison reported (43, p. 19): "It was found that in cities and villages maintaining kindergartens 6 per cent of first-grade children fail of promotion as compared with 20 per cent in those not maintaining kindergartens." This type of evidence demonstrates the value of the kindergarten as a part of a preventive program. A high percentage of failures is an indictment of the school system that produces it.

The aims of the modern kindergarten have been described very neatly by Foster and Headley (17, p. 33):

The American kindergarten of today attempts to give to the child of five an education which is appropriate to his stage of development, which will be satisfying to him in the present, and which will prepare him for the years immediately following. By such an education we mean the development of all his powers, emotional and social as well as mental. We seek not to give him all the information which he may need now or in the future, but rather to equip him with the

Norma Geisanlter   BLUE-RIBBON PICTURE   *Shaker Heights, Ohio*

C Balanced informational reading program

VI. Development of adequate procedures for the teaching of poetry and other forms of literature

VII. The relating of reading activities to existing interests

VIII Use of extrinsic and intrinsic procedures for stimulating interests

Suggestions for the development of reading interests include the following

I. Surround children with a wide variety of books

A Encourage wide reading to secure many points of view

B Encourage browsing and other types of extensive recreational reading activities

C. Allow freedom of choice

D Encourage the organization of reading clubs

E. Satisfy the range of pupil interests

II. Encourage the use of library cards

III Stimulate the reading of current events

IV Vitalize reading material through the use of visual aids

V. Provide frequent opportunities for the sharing of interests:

A. Reading aloud exciting passages or samplings of good books

B. Dramatizing stories

C. Telling anecdotes from interesting books

D. Discussing and conversing during Book Club hour

E. Reviewing books

F. Reporting on information to be evaluated in terms of class or group problems and questions

G. Preparing bulletin board exhibits from recreatory or informational reading

VI. Differentiate problems and goals in terms of the learner's capacity and reading ability.

dergarten practices need to be evaluated in terms of the objectives of general education and in terms of the extent to which guidance is differentiated to meet individual needs and interests.

A broad view of readiness for reading, as described herein, will not restrict or narrow kindergarten education but will point it toward the goals of general education. For generations, able kindergarten teachers have been concerned with the mental, emotional, and physical development of their pupils. This is the very core of a carefully considered reading-readiness program.

In a discussion on reading readiness, Witty and Kopel comment (53, p 182)

> Undoubtedly the kindergarten serves a very significant purpose in preparing for reading in the first or second grade But its functions must never be thought of in terms of such a narrow concept The kindergarten is a place wherein children are learning basic attitudes and acquiring new, varied, and vital experiences which lead children to be cooperative, exploratory, self-directed, and relatively independent It should never be conceived as a place wherein all children, or even most children, receive primarily a preparation for reading.

The chief difference between kindergarten and first-grade children is that the first graders are a year older and, therefore, the range of learning readiness is greater. Wise teachers of both groups of children are concerned with developmental needs. Many children in the first grade have achieved no more mental or emotional development than some kindergarten children have. This overlap in capacities, abilities, needs, and interests is a common denominator for kindergarten and primary teachers.

Basal Reading-Readiness Materials

Preparation for Reading. Since the first publication of a reading-readiness book as part of a basal series of readers in 1935, the idea of making available some type of reading-readiness materials has caught on rapidly. In addition, materials have been published for use independently of a given series of readers. While these first attempts have been somewhat crude, the whole question of preparation for reading has been thrown open. Although it would be folly to assume that an adequate reading-readiness program can be put between the covers of either a workbook or a textbook, teachers have been given further insight into the problems of readiness for systematic instruction in reading.

Basal reading-readiness materials are not a panacea for reading-readiness ills. Their development has enhanced, in many school situations, the possibility of a more gradual induction of the child into reading activities, has emphasized what the teacher can do to prepare children for reading activities, and has sensitized the teachers to the need for a continuous program of appraisal of pupil learnings.

Nature of Content In most reading-readiness books, a maximum use is made of picture material First, there are large composite pictures dealing with a number of items related to a given center of interest. For example, a farm scene may show the farmhouse, barn, silo, corn cribs, windmill, animals, the mail box, and so forth. Second, there are pictures showing a part of a scene related to some larger center of interest. For example, one section of a farm scene may show the farmer driving his cows into the big barn. Third, a series of pictures may be used to tell a story. This serial may be used primarily to develop the ability to carry a sequence of ideas in mind. A second serial may be used to teach the child to predict outcomes. This second type may lead up to a certain point and ask what will happen next, or the last two pictures may be out of order, requiring evaluation of the preceding pictures to predict the right sequence of events. Fourth, a number of small pictures may be used on a page to illustrate

power to meet new situations, with the understanding of how to gain whatever information he may need We try to give him practice and skill in thinking rather than tell him what he should think We are interested in discovering the abilities and possibilities of each child and we plan our school in accordance

In addition to developing background of general information and work habits, the kindergarten teacher can contribute specifically to readiness for reading This specific preparation deals with language development Teachers concerned with problems of readiness for initial reading instruction will find Chapter XVII, "Language in the Kindergarten," of Foster and Headley's *Education in the Kindergarten*, a rich source of help At the beginning of the chapter, the following general discussion of language activities is especially significant (17, p. 258).

During many of the periods and activities of the day the kindergarten attempts to give the children opportunities to
1 Clarify their thoughts through oral expression
2 Acquire an ever larger and more meaningful vocabulary
3 Acquire correct oral language habits correct grammar, clear enunciation, careful pronunciation, pleasing voice
4 Develop the ability to present ideas and to listen to the presentation of ideas
5 Acquire or preserve spontaneity of speech
6 Share in a vicarious fashion the experiences of others in the group
7 Appreciate the significance of written words

One cannot with any fairness speak of a language "period" in the kindergarten To the credit of most kindergartens it may be said that throughout the daily program abundant opportunity is offered for practice in oral expression The children are encouraged to converse informally in a wholesome fashion, to organize and present their ideas verbally to the group, to listen attentively to the ideas presented by others, to engage in the conversational give and take of organized social periods, to dramatize, tell, and originate stories, to interpret pictures, to dictate letters and reports summarizing group ex-

periences, and to make up jingles, rhymes, and riddles.

Dr. Nila Banton Smith has offered sound advice to first-grade teachers regarding the adjustment of children to first-grade activities. She points out that there should be no dichotomy between the kindergarten and first grade (45, p 71).

It is not desirable to plunge children into organized reading instruction immediately upon their entrance into the first grade Their adjustment to the new teacher and classroom and to the more advanced activities of first-grade life is of prime importance at this time The teacher should make every effort to preserve the free, spontaneous atmosphere of the kindergarten and to make the transition so easy for the children that they will feel no strain or strangeness in the new situation Reading should not be neglected during these early days of adjustment but should be taught only in an incidental way

Reading and the Kindergarten In the past, two extreme positions have been taken: the first was a refusal to give any consideration to the contribution of kindergarten activities to initial reading instruction, the second was a deliberate attempt to force reading instruction down into the kindergarten Experience of the last fifteen years, especially, makes clear the fallacies of either of these extreme positions In addition to other types of development, growth in *readiness* for reading should be one of the outcomes of kindergarten experiences. On the other hand, the development of reading ability is not one of the objectives of kindergarten education. In general, the needs and interests of five-year-olds should be the chief consideration of the kindergarten teacher.

Reappraisal of the Kindergarten This fairly recent emphasis on reading readiness has interested a larger number of psychologists and educators in the kindergarten program of education As a result, some kindergartens are due for a reappraisal if not an overhauling Kin-

use. These large (size: 13x18") and attractive books can be easily seen by all the pupils in the group. The pictures are of two types: "concept" and "sequence."

Julia Hahn's *Everyday Doings* was published in 1935 with the statement that "a new kind of preprimer work is provided—that of picture reading." It was a different type of book than those published before that time because "The booklet does not predigest the primer stories but it furnishes the background for understanding them." Teachers were given two alternatives: The first, to put the preprimer booklet in the hands of all pupils; the second, to use a set of large orientation picture cards with the class or with groups. The individual material proceeded from large composite pictures through a series of related pictures and of sequential pictures to the matching of words and pictures. In the last part of the book, this matching of words and pictures "To Help You Read" was done with words used early in the primer. Julia Hahn pioneered with her *Everyday Doings*.

In the *Reader-Manual* dealing with *Beginning Days*, an optional prereading book, Gates and Bartlett (p. 142) state that the purpose of the book is "to provide a carefully graded series of supervised experiences in picture interpretation, related experiences, story construction, and the systematic use of a printed book. *Beginning Days* provides also for the development of certain of the simplest reading techniques."

Beginning Days consists of seven main parts, covering forty-eight pages in a book. Part I is an introductory unit, developed by means of six pages of pictures. The pupils are encouraged to study their own school building. Planning the survey, examination of the school building, making a picture of the school and labeling the picture, discussions regarding care of the building and playground, planning school lunches, an excursion to the grocery store—these and other suggestions are given to the teacher for the development of the first unit.

Activities for Part II center around a railroad station, a farm, and a beach. Through picture interpretation, the pupils are required to relate vicarious experience to the activities of the unit.

In Part III the children "read" a picture story of a picnic, developed on eight pages. The next twelve pages are used to develop another story for Part IV. After "reading" Part IV, the children are required to predict "what happened?" Part V, a picture story developed on five pages, is presented with printed text, which the teacher reads to the pupils. Another six pages of pictures accompanied by printed text are used in Part VI further to induct the pupils into reading. The last eight pages, Part VII, lead the children through a picture story of a circus, with printed text read by the teacher. The pupils are required to predict the outcome.

The second approach involves the use of workbook material that is purported to contribute to a number of reading-readiness facets. Examples of this second type of reading-readiness material include:

Betts, Emmett A., and O'Donnell, Mabel. *Here We Go*. Evanston, Illinois: Row, Peterson and Company, 1938.
Gray, William S., and Monroe, Marion. *Before We Read*. Chicago. Scott, Foresman and Company, 1937.
Storm, Grace E. *Sue and Mickey*. Chicago. Lyons and Carnahan Company, 1937.
Welch, Carolyn M. *Take Off*, Reading-Readiness Book—Betts Readers. New York: American Book Company.

Purposes of the Workbook. The workbook type of reading-readiness material has been designed to serve two purposes: First, to provide a screening-out device for detecting those pupils requiring a more careful study of their reading-readiness needs. This type of device stimulates teacher interest in "learning" the child before attempting to teach him. In well-prepared teachers' manuals, the teacher is given symptoms to be identified, suggestions for analyzing the causes

MANUALS AND GUIDES FOR TEACHERS

Professional interest in pedagogical problems and caustic remarks of the critics of basal readers have motivated the authors of basal textbooks to develop teachers' manuals and guides that are rich sources of information. And perhaps it is true that modern notions regarding the reading instruction are translated in no small degree through well-written manuals. Highly questionable learning situations surveyed by the writer and his students undoubtedly could have been improved by means of a careful study of the manuals by the entire teaching staff

Considerable research goes into the making of many teachers' manuals A really adequate manual is based on a careful study of the sequential development of skills, abilities, attitudes, and information in reading as they are related to the development in other phases of language. Then, too, many hours of teacher time are saved by the inclusion of lists of selected books, stories, poems, verse, rhythms, and songs appropriately related to a given unit. Furthermore, careful attention usually is given to the basic principles of reading instruction, such as orientation or preparation, silent reading before oral, etc. These materials often are buttressed with references to worth-while professional publications

Use and Misuse of Manuals. Regimentation—one of the chief perils of education—is achieved largely through the misuse of basal textbooks. However, the problem will not be solved necessarily by the complete elimination of all basal books. Such a recommendation may produce chaos rather than intelligent differentiation of instruction in terms of pupil needs. A beginning is being made on this problem through some teachers' manuals. The admonition to begin where each

learner is and to provide for needs at that level must be followed by suggested techniques for differentiating instruction. There is still an urgent need for more attention to this problem in relation to the broader goals of reading instruction

The authors of recent manuals appear to be giving more attention to the broader aspects of the reading program than has been given heretofore. More emphasis is being placed on reading as a social tool rather than on reading as a tool of learning. Critical comprehension, procedures that insure understanding rather than verbalism, the role of purpose in learning rather than sheer mechanical repetition, a balanced program of extensive and intensive reading, the use of reading as only one learning aid, audience type reading, the relationship of reading to the general language problem—these and many other facets of the reading program are receiving more attention now than they did a generation ago.

In many respects, teachers' manuals and guides come to close grips with the everyday problems of teachers who use basal textbooks. Many of them are highly profitable reading for teachers interested in such questions as these: How should a book be introduced to the children? How should developmental reading activities be organized? What can be done for children who are not ready for reading? In what order should word-recognition skills be developed? What skills and abilities can be developed through the use of a basal reader? On what bases can pupils be grouped for instruction? To be sure, not all the questions of an alert teacher can be answered in a teacher's manual. A recipe book has not been written because learning situations and children differ so much. There are things in teachers' manuals as in other professional books that are wide open to criticism. Because manuals do deal directly with daily teaching problems, they merit reading and careful study.

of the difficulties, and help on meeting the needs of individuals Second, to provide the basis for reading-readiness developmental activities

Below is presented a list of the major items of development considered by one or more of the authors of three recently published basal reading-readiness books.

I. Language development
  A Association of meaning with symbols
  B Language-fact relationships (concepts)
  C Likenesses and differences in action (perception of relationships)
  D Classification of ideas (perception of relationships)
  E Sequence of ideas
  F Vocabulary
  G Speech
  H Word learning
II. Visual discrimination
  A General configuration
  B Details
  C Colors
III. Auditory discrimination
IV Memory span
V Following directions
VI Kinaesthetic training (eye-hand coordination for tracing dotted contours)
VII Left-to-right progression
  A With pictures
  B. With words

ORGANIZATION OF DEVELOPMENTAL ACTIVITIES

Special manuals have been developed by the authors for teachers using some of the basal reading-readiness, or prereading, books For other prereading materials, suggestions to the teachers are given on the inside front and back covers. Beginning teachers, especially, will find some excellent suggestions for developing reading-readiness in these manuals

For her *Everyday Doings*, Julia Hahn used the following plan for organizing her teaching suggestions

1. Examples of good stories
2. Suggested checking exercise
3 Supplementary activities

In addition to the general directions given to the teacher in the pupil's book, *Before We Read*, Gray and Monroe provided specific suggestions in the *Guidebook for the Preprimer Program of the Basic Readers* While the organization of the plans varies in terms of the unit, the following is a fairly typical sample of the format·

1 General aims and procedures
2 Preliminary development
3 Independent work
4 Related practice

In order to help the teacher with the reading of the teachers' manuals, a well-defined format is usually used by the authors For example, each unit of *Guidebook for Teachers on Initial Stages of Reading Readiness*, prepared by Betts and O'Donnell, is organized around the following items

I Major factors with which this unit is concerned
II. Purposes of the activities
III Procedure
  A Preparation
  B Developmental activities
IV Diagnosis of pupil responses
V Further developmental activities

Gates and Bartlett use the following format for their manual to accompany *Beginning Days*.

1 Introductory and review activities
2 Enrichment activities
3 Classes without *Beginning Days*

Miss Carolyn M. Welch used the following organization for each unit in the *Teacher's Guide to Take Off*, Reading-Readiness Book—Betts Readers

I Major Reading-Readiness Factors
II. Related Reading-Readiness Factors
III. Major Purposes
IV. Major Concepts
V. Key to Correct Responses
VI. Developmental Activities
  A Orientation
  B Guided Study
    1 Getting the Main Idea
    2 Noting Details

initial reading. This is a fundamental consideration which, when accepted, will cause experienced teachers to place less emphasis on "packaged" materials. A carefully considered reading-readiness program exceeds the bounds of a single book, and involves experiences ranging from the direct to the strictly vicarious.

Ninth, attention has been focused on the developmental activities that contribute directly to readiness for reading. In the past, there has been some evidence that many so-called readiness activities were only remotely related to the development of specific prerequisites for reading. It appears that the identification of worth-while readiness activities is being achieved without jeopardizing other facets of child development. Undoubtedly future efforts will be directed toward a critical appraisal of the values of given procedures.

Tenth, increasing attention is being given to differences among children at all school levels. In the teachers' manuals prepared for basal prereading materials, the authors have golden opportunities for sensitizing the teacher to the wide range of differences within a class, for giving advice on how to "learn," or study, the pupils, and for providing specific suggestions for differentiating instruction in terms of learner needs. This responsibility has been assumed by some of the authors.

PITFALLS

The use of basal prereading materials offers many opportunities for faulty educational procedures First, there is always the danger of falling into the time-worn rut of regimentation Sheer postponement of reading instruction by requiring all pupils to be paced through the same basal prereading materials is likely to be a carry-over from the regimented use of basal readers and other types of basal textbooks. When undifferentiated use of basal materials is made, pupil interest is likely to be stifled because needs are not met. Failure to dif-

ferentiate instruction in terms of pupil needs frustrates both the establishment and the achievement of learning goals. Teachers must be warned against this real danger of regimenting reading-readiness activities through inappropriate uses of basal prereading materials

Second, there is the pitfall of limiting reading-readiness activities to that narrow range of materials that is found in prereading books Although many of the authors state clearly the inadequacies of their pupil materials for a well-rounded reading-readiness program, this narrowing of the reading-readiness activities has been noted in some school situations.

Third, pupils can be forced into prereading activities for which they are unprepared in the same way that some children are forced into initial reading activities without adequate orientation. This type of situation sometimes stems out of the regimented use of basal textbooks.

Fourth, there is always the danger of using workbook material for sheer busywork. Basal prereading books are no exceptions. Readiness activities must be planned in terms of needs and each group of pupils must be adequately prepared for successful participation in a given activity. Prereading books are not self-teaching devices.

Types of Reading-Readiness Activities

Variety of Approaches to Readiness. In some school situations, reading-readiness activities are developed around basal reading-readiness books; in other situations, reading-readiness skills, abilities, attitudes, and information are fostered in connection with the development of large units of activities. Whether or not a basal reading-readiness book is used, there is a general acceptance of the unit approach to the development of readiness for initial reading instruction. Reading readiness cannot be purchased in a

BASIC CONSIDERATIONS

An appraisal of many of the manuals for basal reading-readiness materials will reveal certain important considerations. First, provision is made for the gradual induction of the pupil into reading activities. In the past, there has been some evidence of a too hasty attempt to teach all children to read. Certain pupils have been frustrated by being thrust into a multiplicity of skills without adequate preparation. Most of the authors of basal materials have recognized the need for a gradual and sequential presentation of initial reading skills.

Second, there has been a fairly general recognition of developing a readiness for the use of prereading materials. Guidebook suggestions usually include the establishment of rapport between teacher and pupils and among pupils, the stimulation of interest in books, the care and use of books, and the like. Since the prereading book may be the child's "first" book, some special ceremony is usually devised to give each individual his full share of the thrill.

Third, emphasis has been placed on the need for careful orientation for the development of a given unit. Specific suggestions are given in most of the manuals, or guidebooks, for the preliminary development (orientation or preparation) of a unit. This preparation permits the teacher to "learn" the pupils and assists them in the development of effective and independent work habits.

Fourth, there is an increasing awareness of the need for developing specific skills, abilities, attitudes, and information before inducting the child into the interpretation of printed symbols. For example, skills in "reading" picture-type material are developed to emphasize left-to-right progression, right-to-left return sweeps, and so forth. Abilities to communicate in complete sentences, to carry a sequence of ideas in mind, and the like receive specific attention. Attitudes of wanting-to-knowness and a curiosity about books are given prime consideration. And lastly, the child is led to acquire information about books for pleasure and for facts and other pertinent items before he is expected to be prepared fully for satisfying experiences with reading activities.

Fifth, the authors of reading-readiness materials have taught teachers extensive to the need for "learning" pupils before "teaching" them. Some of the teachers' manuals contain numerous suggestions for determining a pupil's general status of readiness for reading through the use of standardized reading-readiness tests, systematic observations, developmental histories, and anecdotal records. These materials, therefore, have been a potent factor in breaking down the general notion that all children are to be taught to read upon admission to the first grade or when a given chronological or mental age has been attained.

Sixth, the authors of reading-readiness materials have emphasized with some degree of effectiveness the need for continuous appraisal of readiness. Through observations made systematic by means of informal check charts, the teacher is given a means of making frequent observations regarding the development of both prerequisites for reading and initial reading abilities.

Seventh, the development of basal reading-readiness materials has tended to make clear that, in general, readiness can be developed. This is one of the chief justifications for the publication of "packaged" materials and the accompanying manuals. Those exponents of soft pedagogy who advocated the sheer postponement of reading instruction have been required to review the facts. The general notion has been put across that readiness is not just something to be waited for.

Eighth, most of the authors of basal prereading materials clearly inform the teacher that their materials are not adequate to do all the instructional jobs involved in developing readiness for

A. Outlining the plans for a unit

B. Organizing what has been learned from a unit

C. Experimenting with sounds in rhymes, jingles, and songs

VIII. Preparing an "orange-box" movie

IX. Preparing and presenting dramatizations to entertain others

X. Preparing booklets and scrapbooks

XI. Learning about kinds and care of books

XII. Making reports to groups, to classmates, to other classes, and to other visitors on special occasions

XIII. Constructing play airplanes and automobiles, stop and go signs, charts, pen for classroom pets, frieze, clay figures, and the like

XIV. Caring for classroom pets such as a rabbit, chicken, or guinea pig

XV. Playing language, number, color, and matching games

XVI. Preparing for birthday celebrations

XVII. Developing a rhythm or toy band

XVIII. Planning, assigning, and follow-up on classroom housekeeping jobs

XIX. Planning and caring for a school garden

XX. Planning, conducting, and summarizing simple experiments such as how a doorbell works, what a magnet will attract, how to make a vegetable dye, how much time is required to hatch a duck egg, how plants grow, and how to make butter

XXI. Browsing through picture books

XXII. Collecting and organizing information for a bulletin board

XXIII. Learning how a typewriter works

XXIV. Conducting telephone conversations

XXV. Working out puzzle games

XXVI. Engaging in rhythm activities such as games, dancing, skipping, hopping, and the like

XXVII. Illustrating stories

Grouping in Terms of Needs and Interests

The above sampling of reading-readiness activities is merely suggestive of the type of things children do in kindergarten and primary classrooms Many of the activities include the whole class; others may be undertaken by groups and individuals. Needs and interests should be given primary consideration when individual contributions are being planned The shy and retiring may need to demonstrate to themselves and to their classmates that they can do well in certain things Grouping the children in terms of needs and interests makes possible a positive and constructive emphasis on such items as language facility, visual discrimination and motor co-ordination. Grouping also makes it possible for the slow learners to engage for a longer period of time in reading-readiness activities and for the fast learners to be challenged by advanced activities. How much these activities contribute to the development of readiness for reading depends upon the extent to which the teacher caters to individual needs and the expertness of the teacher in bringing out the desirable reading-readiness elements The child, for example, may be interested in the experiment but the teacher should guide him in seeing relationships and in organizing the steps in the experiment.

Related Materials for Developmental Activities

Classroom Materials. Fortunately, activities for the development of reading readiness are centered around the every-day activities of children. While an extensive outlay of physical equipment is not required, a number of items must be collected by the teacher and her pupils. The following is a listing of some of the things usually accumulated in a kindergarten or primary classroom where worth-while things happen.

Picture books. These may be collected from homes and libraries Children should be encouraged to make their own

book any more than reading ability can. To produce results, the teacher must plan carefully and work at the problem.

The following is a list of the types of reading-readiness activities sponsored in a modern school:

I Excursions and field trips to greenhouses, zoos, parks, railway terminals, bus stations, airports, printing establishments, wharves, museums, farms, dairies, hatcheries, factories, florist shops, stores, broadcasting stations, and the like

II Making and labeling collections of plant life, minerals, models, pictures, and the like

III Making equipment, collecting and classifying books, and setting up a small library system for the library corner or reading center

IV Storytelling by librarian, teacher, and children

   A Retelling stories enjoyed

   B. Telling the sequence of events in an interesting experience

   C. Telling stories from pictures

V. Reading aloud by teacher and librarian

   A. Listening to poetry, verse, stories, and the like

   B Listening for information read from science books, elementary encyclopedias, and the like

VI. Informal discussions to plan, develop, appraise, and summarize a unit of experience

   A. Telling about and sharing possessions brought to school, such as pets and books

   B. Sharing information

   C. Explaining steps in a simple experiment

   D. Planning and composing request and thank-you notes

   E. Writing letters

VII Preparing and revising experience records dictated by the class, a group, or an individual

SHARING INTERESTS

State Teachers College   Oswego, N.Y.

A. Outlining the plans for a unit

B. Organizing what has been learned from a unit

C. Experimenting with sounds in rhymes, jingles, and songs

VIII. Preparing an "orange-box" movie

IX. Preparing and presenting dramatizations to entertain others

X. Preparing booklets and scrapbooks

XI. Learning about kinds and care of books

XII. Making reports to groups, to classmates, to other classes, and to other visitors on special occasions

XIII. Constructing play airplanes and automobiles, stop and go signs, charts, pen for classroom pets, frieze, clay figures, and the like

XIV. Caring for classroom pets such as a rabbit, chicken, or guinea pig

XV. Playing language, number, color, and matching games

XVI. Preparing for birthday celebrations

XVII. Developing a rhythm or toy band

XVIII. Planning, assigning, and follow-up on classroom housekeeping jobs

XIX. Planning and caring for a school garden

XX. Planning, conducting, and summarizing simple experiments such as how a doorbell works, what a magnet will attract, how to make a vegetable dye, how much time is required to hatch a duck egg, how plants grow, and how to make butter

XXI. Browsing through picture books

XXII. Collecting and organizing information for a bulletin board

XXIII. Learning how a typewriter works

XXIV. Conducting telephone conversations

XXV. Working out puzzle games

XXVI. Engaging in rhythm activities such as games, dancing, skipping, hopping, and the like

XXVII. Illustrating stories

Grouping in Terms of Needs and Interests. The above sampling of reading-readiness activities is merely suggestive of the type of things children do in kindergarten and primary classrooms. Many of the activities include the whole class; others may be undertaken by groups and individuals. Needs and interests should be given primary consideration when individual contributions are being planned. The shy and retiring may need to demonstrate to themselves and to their classmates that they can do well in certain things. Grouping the children in terms of needs and interests makes possible a positive and constructive emphasis on such items as language facility, visual discrimination and motor co-ordination. Grouping also makes it possible for the slow learners to engage for a longer period of time in reading-readiness activities and for the fast learners to be challenged by advanced activities. How much these activities contribute to the development of readiness for reading depends upon the extent to which the teacher caters to individual needs and the expertness of the teacher in bringing out the desirable reading-readiness elements. The child, for example, may be interested in the experiment but the teacher should guide him in seeing relationships and in organizing the steps in the experiment.

Related Materials for Developmental Activities

Classroom Materials. Fortunately, activities for the development of reading readiness are centered around the everyday activities of children. While an extensive outlay of physical equipment is not required, a number of items must be collected by the teacher and her pupils. The following is a listing of some of the things usually accumulated in a kindergarten or primary classroom where worth-while things happen.

Picture books. These may be collected from homes and libraries. Children should be encouraged to make their own

book any more than reading ability can produce results, the teacher must plan carefully and work at the problem.

The following is a list of the types of reading-readiness activities sponsored in a modern school

I Excursions and field trips to greenhouses, zoos, parks, railway terminals, bus stations, airports, printing establishments, wharves, museums, farms, dairies, hatcheries, factories, florist shops, stores, broadcasting stations, and the like

II Making and labeling collections of plant life, minerals, models, pictures, and the like

III Making equipment, collecting and classifying books, and setting up a small library system for the library corner or reading center

IV Storytelling by librarian, teacher, and children

A Retelling stories enjoyed

B. Telling the sequence of events in an interesting experience

C. Telling stories from pictures

V. Reading aloud by teacher and librarian

A. Listening to poetry, verse, stories, and the like

B Listening for information read from science books, elementary encyclopedias, and the like

VI. Informal discussions to plan, develop, appraise, and summarize a unit of experience

A. Telling about and sharing possessions brought to school, such as pets and books

B Sharing information

C. Explaining steps in a simple experiment

D. Planning and composing request and thank-you notes

E Writing letters

VII. Preparing and revising experience records dictated by the class, a group, or an individual

SHARING INTERESTS

State Teachers College   Oswego, N.Y.

Milton Bradley Company
811 South Wabash
Chicago, Illinois

Creative Playthings, Inc.
5 University Place
New York, New York

Prang Education Company
(see American Crayon Company)

F A O. Schwarz Toy Company
745 Fifth Avenue
New York, New York

Outcomes

From developmental activities, children should achieve a sound preparation for reading. Some of these achievements may be listed as follows

1. A curiosity about books
2. An eagerness to read
3. Adequate notions of the relationship between printed symbols and the facts for which they stand. Briefly, some ability to read
4. An appreciation of good literature
5. A background of worth-while facts. This includes both first-hand and vicarious experiences.
6. An enlarged and worth-while vocabulary based on experience
7. A facility in the clear expression of ideas. This includes some ability to organize information and to express ideas clearly in sentences.
8. Ability to retell the sequence of events in a story or an experiment in their proper order
9 Increased ability to make visual and auditory discriminations. In short, good habits of observation and listening
10. A stable personality, free from frustrations in language situations, that contributes to normal social adjustment. This includes confidence and desirable attitudes.
11. Independent work habits that contribute to concentration
12. Skills for the proper handling of books
13. Habits of attentive listening
14. An established feeling for left-to-

rightness in reading pictures and printed symbols

A well-planned, differentiated program for the development of reading readiness should result in certain gains that would at once enlist the co-operation of school board members, administrative officers, and parents. Some of the outcomes can be briefed: First, reduction of pupil failures; second, elimination of much of the remedial instruction by shifting the emphasis to differentiated instruction; third, intelligent co-operation of parents and teachers to the end that the broad goals of education are achieved; fourth, better adjustment of pupils, fifth, enlistment of teacher interest in reading readiness on an all-school basis Schools are operated for children; hence, the emphasis should be placed on the resulting pupil adjustments.

Summary

Sufficient evidence has been accumulated to substantiate the statement that, in general, readiness for reading can be developed. This chapter deals with preliminary considerations for the fostering of reading readiness. Succeeding chapters will offer detailed suggestions.

Some of the information in this discussion is summarized in the following statements:

I. Developmental reading-readiness activities should be concerned with the detection of physical handicaps and the care of remediable defects. For example, extended visual and auditory discrimination activities may be worse than useless if the child has a serious visual handicap or hearing impairment.
II. Many reading difficulties may be prevented by a gradual induction of the child into reading through a series of well-planned reading-readiness activities.
III. Reading-readiness instruction should be differentiated to meet individual

picture books to supplement the supply in the classroom reading center.

Story and poetry books. These, too, may be collected from homes and libraries They should include stories, verse, and poetry to be read to the children and to be read by the more advanced pupils

Information-type books In addition to general references, there should be basal textbooks in science and social science because they are manufactured in large quantities and, therefore, are inexpensive

Pictures These should be collected in so far as possible by the children Discarded magazines are a rich source of supply for scrapbooks

Bulletin board Somewhere in the classroom, space should be provided for a bulletin board It is justifiable to sacrifice a certain amount of blackboard space for this purpose Bulletin boards should be placed at eye level for the children.

Art easels If these are not available, they can be made from materials costing less than fifty cents Art easels may be used for preparing the final revision from experience records as well as for art activities

Library corner, or reading center. If standard equipment is not available, orange boxes can be substituted. The library table as well as the shelves may be made from boxes A little paint applied by the children can make the reading center one of the most attractive places in the room

The following is a list of sources of materials useful to the teacher as a guide for the selection of books for the reading center

Beust, Nora E *500 Books for Children* (Bulletin No 11) Washington, D C U S Office of Education, 1939

Frank, Josette *What Books for Children—Guideposts for Parents* Garden City, New York Doubleday, Doran and Company, Inc , 1937

Graded List of Books for Children Chicago American Library Association, 1938

Inexpensive Books for Boys and Girls Chicago American Library Association, 1938. (Second edition)

An Invitation to Read New York: Municipal Reference Library, 1937.

Lathrop, Edith A *One Dollar or Less Inexpensive Books for School Libraries.* (Pamphlet No 88) Washington, D C.: U S. Office of Education, 1940

Mahony, Bertha E , and Whitney, Eleanor *Five Years of Children's Books* Garden City, New York Doubleday, Doran and Company, Inc , 1936

Mason, Charlotte, and Wurzburg, Dorothy *Books for Tired Eyes* Chicago American Library Association, 1940

Morse, Mary Lincoln *Selected List of Ten-Cent Books* Washington, D C . Association for Childhood Education, 1939 (revised)

Ramsey, Eloise. *Reading for Fun.* Chicago: The National Council of Teachers of English, 1937

Reference Guide Chicago Rand, McNally and Company

The Saturday Review of Literature. Children's Book Number Vol XXIV, No 29 (November 8, 1941) New York. Saturday Review Company

Music equipment A good piano is always a desirable piece of classroom equipment. If the teacher cannot play the piano, she should learn how to use a phonograph for music and rhythm activities

Visual aids. Even in a kindergarten classroom, an outline type of globe is used often In addition to this type of visual aid, the teacher may be able to obtain stereoscopic slides, stereopticon views, and films

Construction materials. Oak tag, wrapping paper, saws, hammers, block planes, soft wood, paints and water colors, a vise, and similar materials will be used often in class projects.

Most of the above mentioned equipment may be obtained locally. The following are a few of the companies which distribute special school supplies on a national basis.

American Crayon Company
2002 Hayes Avenue
Sandusky, Ohio

Binney and Smith, Inc.
380 Madison Avenue
New York, New York

Reading. Champaign, Illinois: The Garrard Press, 1941.

16 *Enriching the Curriculum for the Elementary School Child* Eighteenth Yearbook of the Department of Elementary School Principals, National Education Association, Vol XVIII, No. 6 Washington, D C National Education Association, July, 1939

17. Foster, Josephine C., and Headley, Neith E. *Education in the Kindergarten,* Second Edition, New York· American Book Company, 1948.

18. Gans, Roma *Guiding Children's Reading through Experiences* New York Bureau of Publications, Teachers College, Columbia University, 1941

19. Gates, Arthur I "The Necessary Mental Age for Beginning Reading," *Elementary School Journal,* Vol. 37 (March, 1937)

20 Gates, Arthur I, and Russell, D H *Method of Determining Reading Readiness* New York. Bureau of Publications, Teachers College, Columbia University, 1939.

21. *A Guide for the Teaching of Reading in the First Four Years of the Elementary School.* Minneapolis Minneapolis Public Schools, 1940

22. Harris, Albert J *How to Increase Reading Ability* New York· Longmans, Green & Company. Revised 1947.

23. Harrison, M Lucile *Reading Readiness* Boston: Houghton Mifflin Company. 1936.

24. Hebeler, Amanda, and Others *Reading Readiness.* Olympia, Washington: Department of Education, State of Washington, 1936

25. Hildreth, Gertrude H *Learning the Three R's* Chapter V, "Readiness for Reading," Philadelphia Educational Publishers, Inc., 1936

26 Hildreth, Gertrude H (compiler) *Readiness for Learning Washington, D C:* Association for Childhood Education, 1941.

27. Hockett, John A, and Jacobson, E. W *Modern Practices in the Elementary School* Boston Ginn and Company, 1938

28 Horn, Ernest, *Methods of Instruction in the Social Studies* New York Charles Scribner's Sons, 1937

29 *Implications of Research for the Classroom Teacher* Joint Yearbook of American Educational Research Association and Department of Elementary Classroom Teachers Washington, D C.. National Education Association, 1939.

30 *Instructional Guide for Elementary Schools.* Bulletin 301 Lansing, Michigan: Department of Public Instruction, State of Michigan, 1936

31 Kibbe. Delia E *Improving the Reading Program in Wisconsin Schools* Madison, Wisconsin State Department of Public Instruction, 1939

32 Kilpatrick, William H *Remaking the Curriculum* New York Newson and Company, 1936

33 Kirk, Samuel A, and Johnson, G Orville *Educating the Retarded Child* Boston Houghton Mifflin Company, 1951

34 Lamoreaux, Lillian, and Lee, Dorris May *Learning to Read Through Experience* New York D Appleton-Century Company, 1943

35 Lane, Robert Hill. *The Teacher in the Modern Elementary School* Boston Houghton Mifflin Company, 1941

36 *Language Arts in the Elementary School.* Twentieth Yearbook of the Department of Elementary School Principals, National Education Association, Vol XX, No. 6. Washington, D C. National Education Association, July, 1941

37. McKee, Paul. *The Teaching of Reading in the Elementary School.* Boston: Houghton Mifflin Company, 1948.

38. Miel, Alice, and Others. *Cooperative Procedures in Learning* New York· Bureau of Publications, Teachers College, Columbia University, 1952

39 Monroe, Marion *Growing into Reading* Chicago. Scott, Foresman and Company, 1951.

40. *Newer Practices in Reading in the Elementary School.* Seventeenth Yearbook of the Department of Elementary School Principals, Vol 17, No 7. Washington, D C.: Department of Elementary School Principals of National Education Association, July, 1938

41 *The Primary Manual — A Teacher's Guide* Curriculum Bulletin No 95. Cincinnati Cincinnati Public Schools, 1942.

42. *Reading in the Elementary School* Forty-Eighth Yearbook of the National Society for the Study of Education, Part II Chicago· University of Chicago Press, 1949

pupil needs As has been pointed out, this does not mean individual instruction

IV Reading-readiness activities offer the teacher a means of continuous appraisal of needs

V Reading-readiness instruction is a language problem of the first order.

VI Learner interests may be extended by a systematic appraisal and cultivation During the reading-readiness period, the roots of permanent and worth-while interests in reading activities are nurtured

VII The kindergarten has been well justified as an integral part of the primary. school While the kindergarten teacher is concerned primarily with the well-rounded development of the child, she can contribute substantially to certain specifics of reading readiness

VIII Reading-readiness activities extend far beyond the bounds of a basal reading-readiness book. It is for this reason that the authors of basal readers often give a wealth of suggestions for tying the textbook activities into large units

IX. Basal reading-readiness materials are not a panacea for reading-readiness ills. The development of basal reading-readiness material has enhanced, in many school situations, the possibility of a more gradual induction of the child into reading activities, has emphasized what the teacher can do to prepare children for reading activities, and has sensitized the teachers to the need for a continuous program of appraisal of pupil learnings. On the other hand, misuses of basal reading-readiness materials have resulted in further regimentation, sterile readiness activities, and an extension of busywork. When school administration is based on sound policies, the teacher is the keystone of an educational program.

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2 Betts, Emmett A *Prevention and Correction of Reading Difficulties* Evanston, Illinois Row, Peterson and Company, 1936

3 Betts, Emmett A and O'Donnell, Mabel *Guidebook for Teachers on Initial Stages of Reading Readiness* to accompany *Here We Go* Evanston, Illinois Row, Peterson and Company, 1938

4 Betts, Emmett A "Differentiated Instruction in Reading Instruction," *The American School Board Journal*, Vol 1C, Nos 10 and 11 (April and May, 1940)

5 Betts, Emmett A *The Initial Stages of Reading Readiness* Primary Reading Monograph No 13 Evanston, Illinois Row, Peterson and Company, 1939

6 Betts, Emmett A "Preventive Reading Instruction," *The American School Board Journal*, Vol CV, No 4 (October, 1942)

7 Betts, Emmett A , and Welch, Carolyn M "Directed Reading Readiness Activities," *The ABC Language Arts Bulletin*,

Vol I, No 4, New York· American Book Company, 1948

8 Betzner, Jean (chairman) *A Study of Reading Workbooks* Washington, D C· The Association for Childhood Education, 1939

9 Bond, Guy L , and Wagner, Eva Bond *Teaching the Child to Read* New York The Macmillan Company, Revised 1950

10 Boney, C DeWitt "The Disposition of a Group of Slow First-Grade Readers," *Elementary School Journal*, Vol XXXVII (November, 1936)

11 Broom, M E , and Others *Effective Reading Instruction* New York. McGraw-Hill Book Company, Inc , Revised 1951

12 *A Cooperative Study of Reading Readiness* Madison, Wisconsin The Madison Public Schools, 1937.

13 Dewey, John *Experience and Education* New York The Macmillan Company 1938

14 Dolch, Edward William *Psychology and Teaching of Reading* Champaign, Illinois The Garrard Press, Revised 1951

15. Dolch, Edward W. *Teaching Primar*

CHAPTER XV

Basic Notions About Reading

If the basic consideration in learning to use the mother tongue is the establishment of meanings, then our reading and our composition rest squarely upon the same foundation and constitute a unitary problem It is true symbolism must also be taught, but it must be taught in close and vital association with the meanings themselves It is derivative and not primary   B R BUCKINGHAM (4, p 113)

Concept of Reading

Notions About Reading. In general, reading is done for pleasure or to obtain information. Since some first-grade entrants have been denied previous experiences—direct   or   indirect—with books, newspapers, and magazines, it can be expected that they may entertain some rather weird notions about reading It is common experience to find children who have completed the "formal reading" of a basal book by sheer memorization. The writer has also dealt with eight- and nine-year-old children who had not the remotest idea that the print marks on the page stood for things that they see, feel, hear, or smell In view of this it is clear that one of the firsts in reading instruction is that of insuring adequate notions about reading Even this fundamental fact cannot be taken for granted

Children's Books

Story-Hour Pleasure Most children come to school with a fairly well developed wanting-to-knowness A skillful teacher, really interested in children, will capitalize on this curiosity and develop it further. The story hour, or period, should

be developed so that every child will look forward to a session with Stevenson's *Child's Garden of Verses*, with A. A. Milne's *Jonathan Jo*, or with Rose Fyleman's *Fairies and Chimneys* Later, as some pupils achieve rapidly in reading, the teacher can share the story hour with pupils who have something to contribute Through this sharing of interests is beautiful literature, there is not only an enrichment of the emotional life of the class but also the development of the notion that the funny looking print in an attractive book is a key to real pleasure

If this story hour is to be pleasurable and, therefore, highly successful, then it should not be tainted with constant adult prescriptions of stories to be read and poems to be memorized. Mere parrot-like memorization has no place in modern education Children enjoy literature until they are "educated" out of it. The wise teacher is a keen observer of pupil interests and needs In this sense, she learns where each pupil is in his emotional development and she begins there by varying the types of material she brings to them. Not all the boys will be thrilled with Rose Fyleman's fine works and not all boys will rise to A. A. Milne's *The Old Sailor*. The surest way to defeat

43 *The Role of Research in Educational Progress*
Official Report of the 1937 Meeting
Washington, D C   American Educa-
tional Research Association, National
Education Association, 1937

44 Smith Charles A "The Experience
Method in Beginning Reading," *Ele-
mentary School Journal*, Vol XXXVIII
(October 1937)

45 Smith, Nila Banton *Unit Activity Readers*
(Teachers Guide for the First Year) New
York Silver Burdett Company, 1935

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Curriculum in the Primary Grades* Boston
D C Heath & Company, 1931

47 Stone, Clarence R *Progress in Primary
Reading* St Louis Webster Publishing
Company, 1950

48 Stone, Clarence R "An Experience
Method in Beginning Reading. An
Answer," *Childhood Education*, Vol 38
(February, 1938)

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ton *Reading Activities in the Primary Grades*
Boston Ginn and Company, 1930

50 *The Teaching of Reading A Second Report.*
Thirty-Sixth Yearbook, Part I, National
Society for the Study of Education
Bloomington, Illinois: Public School
Publishing Company, 1937.

51 Thurston, Mildred *Helping Children Live
and Learn* Washington, D C : Association
for Childhood Education International,
1952

52 Tinker, Miles A *Teaching Elementary
Reading* New York Appleton-Century-
Crofts, Inc , 1952

53 Witty, Paul A , and Kopel, David
"Preventing Reading Disability: The
Reading Readiness Factor," *Educational
Administration and Supervision*, Vol 22
(September, 1936)

54 Witty, Paul A , and Kopel, David *Read-
ing and the Educative Process* Boston · Ginn
and Company, 1939

55 Wright, Lula E *Units of Work · A First
Grade at Work* New York · Bureau of
Publications, Teachers College, Columbia
University, 1932

kind of specialized information from etiquette to consumer education. They survey the past, interpret the present, and prepare for the future. If they are more informational than literary—and I think they are—that may be either a tribute to, or an indictment against, the modern parent and teacher who would have children see the world realistically, at any price Whoever views *seriously the abundance* of books, new and old, now available for children, cannot fail to be awed at the responsibility of choosing a balanced reading ration that will insure well-rounded growth

Discovering Interests Through literary materials, the adept teacher can further a wanting-to-knowness that develops an interest in this type of book and that grounds the pupil in his notions about the reading process In like manner, the pupil can be directed to other sources for information. For a multiplicity of reasons, there are always pupils in a classroom who do not talk. Scolding, prodding, nagging, cajoling, and the like are poor substitutes for a more fundamental attack on the problem. Find the child's chief interests and the way is opened for something worth while to discuss Given something to discuss, most pupils are ready to share with their classmates. In short, a pupil's notions about the reading process can be developed further by directing his attention to sources of information pertinent to his interests and needs

Value of Books. May Hill Arbuthnot

READING CLUB
IA GRADE

Program

Arthur

John

Agnes Doran, Grace E Rogers

A READING CLUB

Binghamton, N.Y.

this part of the readiness program at any school level is to prescribe the same emotional learning for all pupils regardless of their varying levels of achievement and of their particular interests

Dr Bernice Leary has this to say about the abundance of books that necessitates careful appraisal in order to insure a balanced diet (7, pp 229-230):

On the whole the new books for children are a fascinating lot Big and little, thick and thin, grave and gay, factual and fanciful, slyly droll and broadly humorous, they are books for every need, from lesson-learning to pillow-smoothing ' Some of them follow the old familiar path of folk tale and fairy tale, of fable, myth, and legend, of toy book,

moral tome, and nonsense story, while others are marking new trails in form and pattern and content and illustration Among these new books are stories of toys—walking dolls, wooden dogs, velveteen rabbits, and willow whistles, stories of animals—bees, bears, bats, cats, camels, mice, rats, snails, whales, pandas, penguins, porpoises, lambs, rams, bulls, monkeys, yaks, horses, stories of industry—about farmers, engineers, air pilots, movie workers, textile workers, stories of far away lands—Mexico, Ecuador, Egypt, Bermuda, Bali, Gobi Desert, books on doing things—sailing, stamp-collecting, huckleberrying, books about famous people—Nansen, Agassiz, Bach, Mozart, Fulton, Shelley, books to create right attitudes and to show that "manners can be fun," that "grammar can be fun," and that "safety can be fun," and books of almost every

of pupil interests and needs to reading experiences, the teacher can insure adequate notions of the reading process and thereby prevent the bewilderment that sometimes characterizes initial reading situations.

In 1915, Frances Jenkins wrote (10, pp. 3–4):

Emmy Lou spent a long time in juggling with the queer process called reading, before the small boy's valentine, with its personal appeal, aroused in her the need to read its message. What efforts she put forth to find what it said! How she rejoiced in its mastery! Some such feeling of need, some personal relation to the reading material, is the motive which a pupil must have if he is to attack his reading lesson with energy and rejoice in its accomplishment. With a strong motive interest raised to the *n*th power, meanings appear which would otherwise be lost entirely, and difficulties of form take their rightful, subordinate place. The teacher who is ignorant of the tremendous power of motive, will find her work greatly lessened if she will study to discover worthy motives for the reading work in her class

Use of Symbols

Direct Experience with Symbols. Variations in pupil background and maturation require a gradual and differentiated program for the development of an awareness of the relationship between words and the facts for which they stand. Children soon learn to recognize their names. At one time kindergarten teachers used labels with different flowers, birds, animals, or some other means for designating a given pupil's belongings. Later it was found that children could discriminate between printed symbols (their names) as well as between pictorial representations of facts. One of the many firsts in developing a readiness for initial reading is that of insuring direct experience in dealing with printed symbols. This instructional job in connection with reading readiness is described by McKee (15, pp 140–141):

It should be obvious now that teaching the young child to comprehend what he reads consists largely of getting him to associate symbols of meaning or thought with that meaning This is usually done by substituting the printed form of the thought for the oral form that he already understands, or by expressing the printed symbol as the oral symbol Consequently, first steps in beginning reading usually seek to teach the child to sound or pronounce the printed symbol of the thought —a process of transfer which enables him to gather meaning from printed words and sentences.

Use of Labels. At this point in this discussion of reading readiness the chief concern is with the association of meaning with symbols The child has heard his name often but, perhaps, has not seen it many times in print. Most first-grade entrants have sufficient motor control to learn to write their names. When this is done, a direct relationship has been achieved between symbols and facts.

Some children, especially in cities, are surrounded with labels. Poster boards blaring forth sales arguments for automobiles, radios, gasoline, etc., confront them on vacant lots, barns, and the otherwise beautiful countryside. In many communities, they or their older companions are guided by street markers and road signs. Shopping trips have been guided by store signs and labels on merchandise. These labels are profuse in life outside school, requiring behavior in terms of their content. While in one sense they may be composed of isolated words, the context which gives them meaning is not lacking.

Labels also serve very real purposes in school life. The name of the building is usually in a prominent place on the outside. Frequently, the classrooms, library, science room, principal's office, and other school units also are labeled to guide strangers. All these labels in school and outside the school can be used by an alert teacher to bring her immature charges face-to-face with the relationship between words and facts.

reported this anecdote to demonstrate that informational books can be a source of satisfaction to even a skeptical now-we-are-six (1, p. 5).

A kindergarten child was sure that snakes have legs concealed under them, just as caterpillars have Nothing would dissuade him The teacher brought in a book on snakes that contained many pictures and much information She showed the pictures and read the needed information Later, the children visited the zoo and saw snakes Only then, was the child persuaded He looked up at the teacher suddenly with very bright eyes, "That book *did* know," he said and added fervently, "Gee, I must learn to read!"

Quiz Session Time should be provided for an "Information, Please!" period, as well as for a story hour By this means children can be encouraged to bring their collections, pets, toy telephones, books, and other items to school to share with their classmates As pupil confidence is developed through the genuine interest of teacher and contemporaries, other things will be brought to school for identification, classification, and information Soon the pupils will be convinced that various kinds of books are sources of the most interesting kind of information The printed symbols will stand for things that exist in life

Teacher and Pupil as Learners The teacher can further the child's interest in informative type materials by making frequent reference to them At no time should the teacher give the children the impression that she is a walking library —that she knows all the answers! When a child describes a bird he wishes to have identified, the teacher should turn to a bird book, an encyclopedia, or some other reference so that books take on increased significance for him Thus can lead to many other interesting experiences for both teacher and pupils

In her excellent book on *First Experiences with Literature*, Alice Dalglesh sagely comments on the development of informational books (5, pp. 72-73)

Within the last few years we have begun to realize the need for books that picture the actual world in which the child lives and give him simple interesting information about the activities that we see going on around him This is by no means a new idea, it is decidedly an old idea in modern dress In the *Orbis Pictus*, which was published about 1657, Comenius tried to picture the whole world for the child and to give him information about a wide variety of subjects Froebel in his *Motherplay* pictured many of the activities then familiar to children, surrounding these activities with symbolism. There were also books such as *Harry and Lucy* and *Sanford and Merton* with their endless questions and answers

Modern informational books are of a different type Selecting the phases of life and the activities in which children are most interested, they present, in simple narrative and picture, facts about airplanes, boats, trains, the farm, the policeman, the fireman and so forth. There is sometimes a thread of story, but no attempt to "sugar coat" the information which the child so eagerly desires The pictures in these books are scientifically correct and they are almost as much information as the text.

It is interesting to find that these books are still regarded with suspicion by the general public and that some people have to be converted to a belief in their possibilities The appearance of an A B C book in which A stood for airplane and F for freight train caused a storm of comment in the newspapers "Why," asked the critics, "must we have an alphabet book so lacking in imagination? Why substitute airplane for apple-pie?" We wonder why any sane individual should consider an apple-pie more romantic than an airplane!

Adequate Notions Through Interests. Development of a curiosity about books can contribute not only to a desire to read but also to notions about the reading process The ability to associate meaning with symbols is fundamental to success in reading situations To a child, finding out that words are used to stand for things in life can be a dramatic experience The teacher should not assume pupil familiarity with this shorthand relationship to life By a skillful relating

Hobson and Granger offer this excellent first-hand description of how names and labels were used effectively in one classroom (16, pp. 298-299):

Our children are for the most part still very individualistic when they come to school "My crayons" and "my book" are objects to be protected without thought of cost to life or limb. Many of the children have never before had the experience of possessing a few things of their own, and it is a bit hard to respect other people's property when one has never had any of his own respected

To correct this situation, the teacher prepares a set of gummed labels for each of the following items cloakroom hooks, chairs, table drawers, sleeping mats, oil clay boxes, crayon boxes, preprimers, and workbooks The children's names are written on these labels in manuscript writing with waterproof ink. We have found it wise to use only the first name of each child In case two given names are alike, the initial of the last name is used also It is fun for a child to choose his own chair and table, and to find boxes with his name on the labels It is also fun to affix the labels himself when he is only six years old. It is a source of great satisfaction to Bobby to know that he and Tommy won't be mixing their jackets any more, and that he won't find himself sitting on a chair that doesn't fit his legs at all

At the time the labels are made, three sets of name cards are made on twelve-by-four-inch strips of oak tag. Except for being larger, these are exactly like the labels. The cards of one set are given to the children, each child keeping his card in his drawer. A number of blank strips cut from news print are kept on the worktable. It is an easy matter for a child whose woodwork, modeling, or other individual activity is unfinished at the end of the work period, to copy his name from his name card onto a blank strip and mark his property so that he won't find, for example, that his carefully sawed table legs are missing when he needs them the next day. Having marked his own things, he is usually careful not to molest the unfinished work of others

A Word of Caution. At no time should pupils be required to learn how to spell or, for that matter, even to read all the words that go on labels. Many of these words have not immediate value in either reading or writing activities; therefore, they may be soon forgotten. On the other hand, the vocabulary which has immediate value in significant language situations merits some special attention The pupil's attention, however, should not be distracted by the mechanics of the language situation during this initial period of introduction to printed symbols Words needed by individual pupils for labeling activities can be written on the blackboard by the teacher and copied by the pupils It should be remembered that writing ability is developed after some experience with reading situations. Ordinarily, pupils are not expected to write words which they cannot read.

Scrapbooks Scrapbooks, a source of satisfaction to many pupils, also can be used to develop the ability to associate meaning with symbols These booklets, made of wrapping paper or some other satisfactory material, may be built about one center of interest or, in the beginning, they may be about miscellaneous items of interest to the pupil. Usually these scrapbooks contain pictures below which is a pertinent label. Magazines, pamphlets, discarded books, and the like are the chief sources of pictures. Children enjoy labeling a picture *Little Black Sambo* or *Bunny Rabbit* and at the same time they are dealing directly with the relating of words to things.

Bulletin Boards. The wise use of bulletin boards can be a potent factor in furthering notions about the reading process. Here again, beginning teachers sometimes assume the full responsibility for the content and arrangement of the bulletin board, thereby denying the pupils golden opportunities to develop abilities to select, evaluate, and organize information. Basic reading abilities are developed from the time children first enter school To be significant to the learners, the bulletin board should be organized around one center of interest predominate at the time in the classroom. Pupils

Most children have enough pride in their school to want to know what the labels stand for.

Within the schoolroom, labels can be used to serve real needs One of the mistakes frequently made by beginning teachers is the preparation of all necessary labels without the help of their children In the normal course of classroom activities there will be a need to label cupboards, boxes, and other places where scissors, art supplies, instructional materials, and the like are kept. When pupil monitors are used to distribute *these items they will soon learn to "read"* them to save time. These labels, therefore, become time-savers in classroom administration.

Labels take on additional significance to pupils when used to designate items *in exhibits and other classroom projects* For example, collections of leaves, dolls, toy trucks, pictures, and the like can serve as the basis for worth-while dis-

cussions and for labeling activities. By these means, well-founded notions of the significance of reading can be developed, oral language is given purpose, interests are extended, co-operation and other desirable personality characteristics can be promoted, and, in general, rapport is strengthened.

In so far as possible, labels should be prepared by the pupils. This should not be given as an additional classroom chore, or piece of drudgery, but should be a privilege, or an opportunity for a pupil to contribute something worth while to the classroom. And, too, there should be no requirement for the pupils to memorize the labels; instead, a familiarity to the point of usefulness should be developed in the normal course of events Pupils learn to talk in order to satisfy personal needs Likewise, reading can be developed in a normal, orderly way when the pupil has reading needs to satisfy.

LABELS ARE USEFUL.

Maude McBroom *University of Iowa*

A NEW LIBRARIAN TAKES OVER.

J. M. Payne *Columbia, S.C.*

Third, when writing on the blackboard, the teacher can call attention in an incidental manner, to the left-to-right progression. Fourth, in the preparation of paper "movie" strips, attention should be directed to the left-to-right sequence. Fifth, when dealing with bulletin-board or blackboard notices and class-dictated materials, the teacher can emphasize left-to-rightness by means of the pointer or the sweep of the hand.

Use of Books

A part of the joy in the use of books should be the care in handling them. By holding a beautiful book before the class, the teacher should lead a discussion about books to instill respect for them Even in very young children, a pride can be developed in clean, unsoiled, and unmarked books.

Following a discussion of the care of books, the teacher should demonstrate how to turn the pages. By means of a little practice, the pupils can learn to hold the book in the left hand and turn the pages from the top corner with the right hand. All pupils should be carefully taught this skill which should be frequently checked during his browsing or reading activities

Directions

The ability to follow directions is essential to independent work habits. Where extreme mental retardation is not present, this can be developed largely through carefully made assignments. Effective classroom administration calls for adequate pupil preparation for immediate tasks. Everyone within the group or class should know *why*, *what*, and *how* to engage in an assigned activity. Valuable experience in following directions can be secured by serving as the teacher's assistant, as pupil monitor, for distributing supplies and for acting as chairman of certain group activities.

should be encouraged, not required, to bring from all available sources worthwhile material for the bulletin board. After the material has been brought, the class or a group should evaluate it for bulletin-board purposes As in life outside of school, not everything offered will be found acceptable, but the pupils, with guidance from the teacher, will evaluate it not only for acceptance but also for arrangement on the bulletin board A bulletin board can be used to clarify the reading process, to extend interests, to develop evaluation and organization abilities, and to develop the give-and-take necessary for harmonious schoolroom life.

Selection, evaluation, and organization of bulletin-board materials pertinent to a center of interest for the class or for a group offer excellent opportunities to develop interests and to further pupil understandings This type of activity re-enforces learning and stimulates wide reading.

Care should be exercised in the placement of bulletin boards They should be in an easily accessible part of the room In fact, more than one bulletin board usually can be used to an advantage. Slanting bulletin boards in place of the blackboard at one end of the room may be used to serve as easels for large art projects These should be placed low enough to be of use to the pupils.

The bulletin boards may be used to advantage for the following types of materials

1 School news
2 Posters for various school campaigns
3 Display of pupil achievements in art and in creative writing
4 Display of manufacturing processes
5 Display of newspaper and magazine clippings pertinent to class or group center of interest
6 Display jackets of new books
7 To report new books available
8 Display of best liked poetry
9 Graphs and pictorial representations of class achievement

Bulletin boards may be used for the following purposes:

1. To teach beginners to associate meaning with symbols
2. To develop ability to select and evaluate materials pertinent to a given center of interest
3 To develop ability to organize
4. To stimulate interest
5 To broaden backgrounds
6. To prepare the class for a new unit
7. To contribute to the development of a center of interest
8 To summarize, in part, a unit of experience

Bulletin-board materials may be classified and filed for future reference. In this way a quantity of material can be collected to enrich activities in connection with science, social studies, literature, music, art, and mathematics.

Miriam Kallen briefly shows how bulletin boards may be used to contribute to beginning reading experiences (11, p 28):

> Messages on the bulletin board offer a variety of reading experiences The things they do—their plans, rules of work, and housekeeping duties—are made into chart records for reading.

Left-to-Right Progression

The knowledge that the reading of English is done from the left to the right should not be left to chance discovery by the pupil The general notion of left-to-rightness involves both the reading of sentences and word attack First, the teacher should make sure that each child is using his preferred hand for all unimanual activities, such as writing, cutting, and hammering. For cursive writing activities, the right-handed person slants his paper toward the left, the left-handed person, toward the right to avoid overhanded writing. Second, in explaining left-to-rightness, the teacher will avoid raising considerable confusion if she demonstrates with her back to the class.

Meaningful concepts not only aid in the interpretation of symbols, there is much experimental evidence to prove that they also aid in fixing the memory of printed symbols so that recognition is aided whenever the word is seen again   LUCILE HARRISON (4, p 33)

Symbols and Things

Experience as a Basis for Meaning Printed symbols have significance for the learner to the degree that they stand for things within his experiences From his previous experiences, the pupil extracts informations and attitudes that are essential to success in reading situations When these experiences are reconstructed in oral language, further readiness for reading is developed. It is through his experiences that the pupil is enabled to understand the stories and other material which he will read. Successful reading requires taking to the reading situation a background of pertinent information. Other things being equal, a background of worth-while experiences can be developed and, therefore, is one of the chief responsibilities of the teacher

Strange things happen to comprehension when experiences are left to chance and are not pointed to the new learning. Miss Dorothy Field, Reading Clinic Assistant, reports this experience with a boy in a fourth-grade class. A class discussion was in progress for the purpose of clarifying notions regarding the development of the cotton gin Peter, a bartender's son, was clear on the fact that the cotton gin is a machine to separate the seeds from the cotton bolls, but his idea of its purpose was based on

his past experience The following is a summary of his notions

Eli Whitney invented a cotton gin It was sweet gin and people liked it Many people bought it Then some men stole Eli's gin from him and made better gin A long time afterward the men died and Eli Whitney was happy, because people started to use his gin again

A similar instance was reported by Miss Helen Hannum, elementary-school teacher in Altoona, Pennsylvania Miss Hannum's children were engaged in a lively discussion of animals A number of pictures had been collected in their study of different kinds of animals. Finally, the discussion got around to a picture of a zebra. One child remarked that he had seen one in a zoo. However, when Mary was asked what a zebra is, she reported, "Yes, I know. When Dad says it's 'zebra,' it's cold outside."

Dr. Ernest Horn has clearly described *the relationship of experience to reading* (7, pp. 177-178):

The principles of apperception apply with peculiar force in reading For the words of the printed page, as has been pointed out, are wholly symbolic Only in so far as they are related to the experience of the reader can they either convey correct ideas or stimulate their construction Unless so related, even statements of the simplest and most concrete matters are unintelligible. "To him that hath

Summary

Through a succession of well-planned and evaluated series of reading-readiness experiences, the child is made aware of reading and his notions about the reading process are further clarified When the reading process is called for in connection with an activity, the teacher should call attention to the fact that she is reading. During the story hour, the teacher spends a part of the time *reading* to the children. Signs, street markers, labels, and the like are *read*. Bulletin-board and blackboard notices, lists, invitations, and so forth are *read*. A concept of reading is systematically developed by these means.

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uppermost in our minds as we build new English curriculums.

The extent to which a pupil profits from his previous experiences depends to no small degree upon his mental alertness. *Dull children are not as likely to have gained from their past experiences as much as their more fortunately endowed contemporaries.* The capacity to recognize new elements in a situation and to relate them for successful life adjustment depends upon and contributes to mental maturity.

In 1916, J. B. Kerfoot summarized the situation regarding experience and the abstract learning aid called reading in this way (8, p. 20):

We read, then, quite literally, with our own experience. We read with what we have seen and heard and smelled and tasted and felt. We read with the emotions we have had —with the love we have loved, with the fear we have feared, the hate we have hated. We *read with the observations we have made and the deductions we have drawn from them;* with the ideas we have developed and the ideals we have built into them, with the sympathies we have developed and the prejudices we have failed to rid ourselves of

Direct and Vicarious Experience

Avenues to Direct Experience A truly rich background of information is se-

POLLY FOSTERS READING INTERESTS

Victoria Lyles

York, Pa.

shall be given." For example, the sentence, "He lost his way in a blizzard" must of necessity have limited meaning for one who has spent his whole life in Florida. When the words or statements in the text are familiar to the reader and stand for ideas that he has previously evolved from his experience, the recall of these ideas is relatively easy. Frequently, however, the reader has neither formulated the idea for which the words stand nor experienced the elements out of which it may be built. Sometimes, indeed, he may not have the vaguest ideas of what the words themselves mean. In the social studies, moreover, most of the statements do not express ideas related to experiences that are either concrete or familiar; rather, they deal with generalizations that the average student has not made, and because of the poverty of his experience is unable to make. Such statements cannot be understood, therefore, until students have acquired elsewhere the necessary background that the book fails to give.

McKee stresses the importance of background for successful participation in reading activities (12, p. 100):

There can be no reading without meanings. And there can be no meanings unless the reader has accumulated a wealth of concepts and experiences with which to interpret the symbols he sees in writing and print. Consequently whatever can be done to provide the prospective reader with important experiences is essential to adequate preparation for reading.

The need for enrichment of experience is clearly described by Miss Mary E. Pennell (14, p. 292):

If reading is to be a meaningful process rather than an exercise in the calling of words, teachers must be more and more concerned with the provision of experiences from which various concepts or meanings are built up. One of the most common causes of failure in reading is the limited number of experiences with which many children approach reading material. As Paul McKee has pointed out, one obtains meaning from printed symbols only so far as one has already a body of concepts or meanings to associate with the symbols. These symbols do not *give* the reader meanings. They merely stimulate him to recall and to enlarge or modify concepts

which he already possesses. A teacher's chief concern, then, should be to provide experiences which will make it possible for reading to become a meaningful process. Teachers of *all grades* and of *all subjects* must look ahead in prepared material, to see what concepts need to be developed in order that intelligent reading can take place. This is a much more fundamental task than to determine that on a particular page a certain new word will occur. The problem of how experiences needed for the growth of concepts can be provided is exceedingly important in any grade and in all subjects.

The relationship of a wide, rich, and varied background of experience to successful reading is appropriately described by Fanchon Yeager (6, p. 18):

Reading may be described as a process of associating meaningful experience with printed symbols. Clearly, then, if, for the reader, there is a meager or total absence of experience for a particular symbol, no meaning, hence no reading, in the real sense, results. Conversely, the wider, richer, more varied concepts which the reader may associate with a given symbol, the more meaning results from a reading situation concerned with that symbol. To illustrate, specifically, a child who has lived all his life in a rural situation can have little meaning tied up with a reading lesson built around a trip to the zoo. A child whose home has always been in an inland environment can have little understanding of material which tells about boats, the beach, and the ocean.

Dr. Robert C. Pooley has this to say about the relationship of content, or information, to language (16, p. 33):

Communication occurs when a meaningful signal passes from a sender, who originates it, to a receiver, who understands it. The sender must have, of necessity, something to communicate and a medium of transmission. For all but the simplest sort of communication, man has created language as his medium. It should be noted that the schools have laid great stress on improvement in the use of the medium, the English language, but have neglected the concomitant development of something to communicate. Until the need to communicate is developed, refinements in the use of the medium are sterile. This factor of the material of communication must be

which are likely to be needed in his early school career.

Professor John Dewey adds this caution (2, pp. 13-14):

> The belief that all genuine education comes about through experience does not mean that all experiences are genuinely or equally educative. Experience and education cannot be directly equated to each other For some experiences are miseducative. Any experience is miseducative that has the effect of arresting or distorting the growth of further experience. An experience may be such as to engender callousness; it may produce lack of sensitivity and of responsiveness Then the possibilities of having richer experience in the future are restricted. Again, a given experience may increase a person's automatic skill in a particular direction and yet tend to land him in a groove or rut, the effect again is to narrow the field of further experience. An experience may be immediately enjoyable and yet promote the formation of a slack and careless attitude; this attitude then operates to modify the quality of subsequent experiences so as to prevent a person from getting out of them what they have to give Again, experiences may be so disconnected from one another that, while each is agreeable or even exciting in itself, they are not linked cumulatively to one another. Energy is then dissipated and a person becomes scatterbrained Each experience may be lively, vivid and "interesting," and yet their disconnectedness may artificially generate dispersive, disintegrated, centrifugal habits The consequence of formation of such habits is inability to control future experiences. They are then taken, either by way of enjoyment or of discontent and revolt, just as they come Under such circumstances, it is idle to talk of self-control

Second, is the experience a required background? Classes vary in their backgrounds of experience and individuals within the class present a wide range of backgrounds. The areas of experience developed with last year's class may not be entirely appropriate for this year's class. The basic backgrounds for a given group of children vary in terms of their own experiences and in terms of those to be encountered in the forthcoming curriculum. For example, city children are likely to be deficient in their basic understandings of the country and rural children may have very little background for the reading of stories about urban life

Certain types of experiences may be necessary in order to clarify hazy notions about which the pupils verbalize. Inadequate or false notions about policemen, firemen, dogs, wild animals, postal service, and the like frequently must be revised or substantiated by a relating to facts. If these facts are basic to oral language or reading activities, then they should be cleared with appropriate experiences that make them required background

Other types of experiences may be necessary in order to fill in gaps in background. Rural or urban children who have never been near a train may need such experience for stimulating an interest in and for building a background for reading materials containing stories about trains. Experiences of this nature may be legitimate because they are, in a sense, required background.

Third, are the experiences varied? One of the chief purposes of attending to pupil backgrounds is that of extending and enriching experiences. There is a tendency in some classrooms to narrow interests to one topic with the result that well-rounded experiences are not provided. Recently the writer recommended an interesting book to a fourth-grade pupil. After reading it, the pupil returned the book with many enthusiastic comments about the virtue of it. The suggestion was made that perhaps she should take the book to school to share with her classmates "Oh, that would be off our line of thought! You know we are studying the St. Lawrence Waterway now," was her quick reply.

Experiences should not be varied to the extent that they become scattered and superficial. In this connection, it is well to appraise the curriculum in order to select and evaluate those experiences which will build up certain specific areas

cured from both direct and vicarious experiences Direct, or first-hand, contact with facts is of prime importance. Direct experience with the care of pets gives a personal touch or new understanding to stories about animals Play activities with model airplanes or, better still, actual observation of full-scale airplanes at the airport can bring reality to a story about airplanes. A visit to the post office at the time mail is being sorted and started on its delivery gives real significance to reading matter on this means of communication To see, hear, touch and smell—these are the avenues to direct experiences for which there is no fully adequate substitute.

Direct experiences can be extended through vicarious—or indirect or secondhand—experiences A resourceful teacher will find a multitude of ways to capitalize on vicarious experiences Stories, poems, maps, globes, slides, films, pictures—all these are within the realm of possibility in modern classrooms It will be noted that reading, itself, is a vicarious experience and therefore must be based on direct experiences and complemented by indirect experiences Added to a rich fund of direct experiences, properly directed vicarious experiences can be used to extend informational background and to relate many previous experiences to the project in hand

The interests which books hold for boys and girls has been described by Dr Dora V. Smith (18, pp 172-173).

In the main, books hold three kinds of interest for children They evoke memories of the child's own everyday experiences, heightened and interpreted by the power of the imagination They help the child to enter into imaginary experiences in line with his hopes and his desires It is this particular need that keeps many a cheap juvenile alive, for in it boys and girls of the same age as the youthful reader do surpassing things Finally, books furnish the child an opportunity for projecting himself into new and fuller ranges of thought and feeling It is in this realm that the teacher of wide acquaintance with books

can make significant contributions to the broadening of interests among boys and girls

Recently Dr. I. Keith Tyler placed "various learning aids on a continuum from direct experience to complete abstraction" (17, pp 151-153). First, he pointed out that "of all these means of learning, reading is the farthest removed from direct experience." At the other end of the continuum he, of course, placed direct experience. Beginning with direct experience, he placed other learning aids in the following order: excursions, simulated out-of-school activities (such as the construction of a classroom grocery store), sound movies, radio programs, silent motion pictures, still pictures, maps and diagrams (an elementary form of language), and reading Dr Tyler concluded. "The greater the removal from direct experience, the greater the amount of background which the individual must supply."

Criteria for Evaluating Experiences

Since time is fleeting, caution must be exercised in selecting worth-while and varied experiences Means of appraising the validity of experiences have been suggested by Harrison (4, pp 34-35), McKee (5, pp 102-104), Yeager (6, pp 18-20), and others The teacher would do well to keep the following criteria in mind for evaluating such activities.

First, does the experience have immediate as well as future value? It may be expected that many interests of children are extremely transitory and therefore are not solid bases upon which to educate. For example, to spend any great amount of time upon the study of rocks because one pupil expressed a passing interest in a rock probably cannot be justified from the point of view of immediate needs or of future reading needs More importance should be attached to those experiences

interest in children's literature. Too many adults look back on their school days as time when they were "educated" out of their feeling for beauty. Not all communication takes place through word language. Facial expression, body tone, voice control, and warmth of personality are potent factors in giving children the feel for literature. These things must be *shared* by teacher and learners.

Robert Hill Lane offers this advice to teachers for maintaining the small child's interest in poetry (10, p. 288):

1. Don't attempt to give poetry to children unless you love poetry yourself. Some people are born blind in this respect, and if you are one of these, leave poetry to your colleague in the next classroom.
2. Don't confine your poetical selections to a few standardized poems which you will attempt to coerce your children into enjoying. Rather, flood the children with all varieties of poems—long and short, easy and difficult—until you begin through observation, to discover the children's poetical tastes.
3. Encourage the children to be honest about their choices. Do not become irritated if the children like poems which do not appeal to you or ignore poems which you admire.
4. Do not be afraid to give children poetry written for people older than themselves "A man's reach should exceed his grasp" and unfortunately much of the poetry which has been written for children is consciously condescending.
5. Always recite a poem, never read it from a book. Listening to the reading of poetry from the printed page is boring whereas if you are freed from the book you can be interesting, thrilling, and dramatic

In developing pupil backgrounds, the teacher must not overlook fine experiences with literature. Not only are they essential to readiness for initial reading instruction but they are also necessary for the continued emotional development. The arts and crafts, music, and the natural and social sciences can also be made to contribute to this type of background. In modern schools, however, these learnings are no longer compartmentalized; through correlation and integration they can be caused to re-enforce one another. To children the emotional element in life is very real; hence, the master teacher does not give it superficial treatment. When the cold facts memorized on hard and uncomfortable school seats are forgotten, it will be the emotional warmth shared by teachers and contemporaries that will survive.

A. A. Milne's qualifications for making this comment on the treatment of children's literature are not likely to be challenged (13, pp 44-45):

We went to Torquay that summer, and Ken on his fourth birthday was given his first real book *Reynard the Fox*. We both read it. When, forty years later, I wrote a book called *Winnie-the-Pooh*, and saw Shepard's drawing of Pooh, the bear, standing on the branch of a tree outside Owl's house, I remembered all that *Reynard the Fox* and *Uncle Remus* and the animal stories in *Aunt Judy's Magazine* had meant to us. Even if none of their magic had descended on me, at least it had inspired my collaborator, and I had the happy feeling that here was a magic which children, from generation to generation, have been unable to resist. *Uncle Remus* was read aloud to us by Papa, a chapter a night. One might he had to go away Little knowing what we were doing we handed the sacred book to our governess (Bee) and told her to go on from there. Some such experience, no doubt, caused the first man to coin the phrase that he "could not believe his ears." Terrible things were happening all round us. Was thus Uncle Remus? Was this our own beloved Bee? One of our idols had to go. Stumbling painfully through the dialect, Bee got to the bottom of the page and asked if she should go on. We said not. It wasn't very interesting, she thought We thought not too. Should she read another book, or should we play a game? We played a game Next night we found the place for Papa Three lines in that lovely understanding voice, and Uncle Remus was saved. But Bee never read aloud again. She was a darling; I still loved her; but I was glad that I was marrying Molly.

In a recent magazine article, "Glimpses of Glory in Children's Books," Professor John E. Brewton issues this challenge (1, p. 155):

of background The range of topics in the curriculum should provide an index to possibilities of varying the activities. Briefly, then, the teacher should ask herself, "Do the experiences broaden the child's background of information?"

Two reasons for the use of a variety of learning aids are advanced by Dr. I Keith Tyler (17, pp 154–155):

One of the reasons why variety is so important is that what individuals learn is affected directly by their interest in the material or the situation While interests can be sustained from the pure intellectual satisfaction accompanying the attainment of new insights and understandings, this requires an individual whose whole personality has become integrated around some intellectual problem. Most persons find their interests are sustained only with a variety of experiences involving a minimum of monotony A second reason for the importance of variety is that direct experience is more likely to involve the emotions It is the emotional responses to situations which motivate further activity.

Fourth, is the experience within the comprehension of the pupils? There is almost no limit to which the giving of information can be carried. An entire and worthwhile book could be written on the subject of the post office, but much of it would be beyond the grasp of most kindergarten and first-grade pupils. In order to insure worth-wholeness of a given experience, the teacher should take steps to evaluate it in terms of the varying pupil abilities to grasp the significance of it Information given only in higher level abstractions contributes only to frustration for beginners

An experience is of value to the learner to the degree that he has had previous experiences related to the "new" experience. If, for example, a child has been sheltered from sharing certain responsibilities about the home and the schoolroom, then he is not likely to gain much from the mere observation of community workers. While preliminary and follow-up discussions may serve to help the child interpret his experiences,

comprehension depends to no small extent upon having had experiences related to the activity under consideration

The above criteria for evaluating experiences should be checked against Dr. Dora V. Smith's criteria for evaluating the reading program itself Dr. Smith's criteria are listed below (18, pp. 173–175):

In the first place, *does our program lead from narrowness of experience to breadth?*

A second standard by which we may judge of the success of our program is this *does it lead from shallowness or triviality of experience to depth and value?*

In the third place, we may ask, *does our program lead children from uncritical acceptance of whatever the author presents them to a demand for sincerity and truth to human experience?*

In the fourth place, *does the program in reading lead children to a sense of the organic and artistic unity which differentiates a good book from a poor one?*

Finally, we raise the most fundamental question of all *does our program lead children to a genuine sense of enjoyment in better and better books?*

Experiences with Literature

Rich Emotional Background. A required background includes both broad factual information and rich emotional experiences Not the lesser of the two is the rich emotional background. Harmonious family life, freedom from unjustified home and school pressures to force language development, reasonable opportunities for experimentation, normal experiences with story telling, picture books, and worth-while literature—all these contribute to the development of a rich emotional life. If the child has been denied occasions to become familiar with *Mother Goose Rhymes*, Christopher Morley's *Animal Crackers*, and the like, then he has been deprived of essential experiences that are at once both vicarious and real

Essential though these experiences with poetry, verse, and story may be, the teacher should omit them from her program unless she too has a genuine

interest in children's literature. Too many adults look back on their school days as time when they were "educated" out of their feeling for beauty. Not all communication takes place through word language. Facial expression, body tone, voice control, and warmth of personality are potent factors in giving children the feel for literature. These things must be *shared* by teacher and learners.

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5. Always recite a poem, never read it from a book. Listening to the reading of poetry from the printed page is boring whereas if you are freed from the book you can be interesting, thrilling, and dramatic.

In developing pupil backgrounds, the teacher must not overlook fine experiences with literature. Not only are they essential to readiness for initial reading instruction but they are also necessary for continued emotional development. The arts and crafts, music, and the natural and social sciences can also be made to contribute to this type of background. In modern schools, however, these learnings are no longer compartmentalized; through correlation and integration they can be caused to re-enforce one another. To children the emotional element in life is very real; hence, the master teacher does not give it superficial treatment. When the cold facts memorized on hard and uncomfortable school seats are forgotten, it will be the emotional warmth shared by teachers and contemporaries that will survive.

A. A. Milne's qualifications for making this comment on the treatment of children's literature are not likely to be challenged (13, pp. 44-45).

We went to Torquay that summer, and Ken on his fourth birthday was given his first real book *Reynard the Fox*. We both read it. When, forty years later, I wrote a book called *Winnie-the-Pooh*, the bear, standing on the branch of a tree outside Owl's house, I remembered all that *Reynard the Fox* and *Uncle Remus* and the animal stories in *Aunt Judy's Magazine* had meant to us. Even if none of their magic had descended on me, at least it had inspired my collaborator, and I had the happy feeling that here was a magic which children, from generation to generation, have been unable to resist. *Uncle Remus* was read aloud to us by Papa, a chapter a night. One night he had to go away. Little knowing what we were doing we handed the sacred book to our governess (Bee) and told her to go on from there. Some such experience, no doubt, caused the first man to coin the phrase that he "could not believe his ears." Terrible things were happening all round us. Was this Uncle Remus? Was this our own beloved Bee? One of our idols had to go. Stumbling painfully through the dialect, Bee got to the bottom of the page and asked if she should go on. We said not. It wasn't very interesting, she thought. We thought not too. Should she read another book, or should we play a game? We played a game. Next night we found the place for Papa. Three lines in that lovely understanding voice, and Uncle Remus was saved. But Bee never read aloud again. She was a darling; I still loved her; but I was glad that I was marrying Molly.

In a recent magazine article, "Glimpses of Glory in Children's Books," Professor John E. Brewton issues this challenge (1, p. 155):

experiences. When the teacher has read and truly enjoyed a story, poem, or verse, enthusiasm is quite naturally transferred to the pupils. An ounce of enthusiasm is worth more than a ton of mechanical procedures. Being quick to imitate adults, the children soon learn to share their own enthusiasms for literature. Guidance in literature, therefore, comes to full bloom when both teacher and pupils share their experiences.

A clear-cut statement regarding the need for guidance has been written by Miss Ruth Moscript (14, p. 349).

How many times have you said or heard said, "Oh, if I had only read those books when I was a child"? And why hadn't you? Perhaps because such books were not available, but more likely because they were not called to your attention. It is essential to guide the reading of children.

All teachers need to whet their appetites for children's literature not only by reviewing the best from the past but also by keeping abreast of new achievements. Announcements of Newbery Medal Awards (to authors) and Randolph Caldecott Awards (to illustrators) are valuable leads. Prominent newspapers (especially the Sunday edition) are excellent sources of information on worth-while new books. Some of these newspaper sections are edited by outstanding authorities on children's literature. Other sources of information include *American Childhood*, *Child Life*, *Horn Book Magazine*, *Publishers' Weekly*, *Story Parade*, *The Elementary English Review*.

Experiences with Facts

Variations in Backgrounds of Experience Most tests of reading readiness include a section on factual type information. When these tests are administered whole areas of experience are sometimes conspicuous by their absence. Some children evidence almost a total unfamiliarity with nature. For example, there are six-and seven-year-old pupils who do not know the color of an apple before it is ripe, what the outside of a nut is called, what a farmer does, the days of the week, the value of the sun, the kinds of common wild animals, and other bits of information that most alert children would have gleaned from their experiences. For pupils with information deficiencies the first responsibility of the teacher is to learn the nature of the handicaps and then provide instruction to fill the experience gap

At all points in this discussion of developmental activities, it is assumed that the teacher has secured general information on every pupil in order to better understand his needs. For example, she may find that some pupils with serious preparatory deficiencies are characterized by general mental retardation. If this is true, certain gross differentiations in the readiness program will be required, because the nature of the reading program for mentally retarded children should be quite different from that for their more fortunately endowed contemporaries. Unusual caution, however, should be exercised in labeling children. Not all children with background deficiencies are dull. Tragedies can be avoided only by a careful analysis of a pupil's difficulties and needs. Yes, being a successful teacher is one of the most exacting tasks, time-consuming but highly satisfying.

Teacher Preparation. Teachers should fortify their own professional libraries with worth-while books. For example, Betty Price's *Adventuring in Nature*, published by the National Recreation Association, 315 Fourth Avenue, New York City (price sixty cents), is a practical guide. References, or "Where to Go for Help," are provided, suggestions for observations and excursions are given, arrangements of collections are discussed, simple experiments are suggested, the care of pets is summarized, and many general helps are investigated. Guides of this type help the teacher to formulate a positive approach to the development of backgrounds of information.

KINDERGARTEN CHILDREN GET LIBRARY CARDS. *New York, N.Y.*

Today beautiful books for children are a potential heritage of American boys and girls. Books, beautiful within and without, made so by authors, artists, and craftsmen are coming from the presses of publishers annually. Picture books for the very young, picture-story books for the now-we-are-sixes, and books of all kinds accurately and artistically illustrated are among them. To be sure, only a few of these are of permanent value, but the real artistic treasures produced down through the ages shine out and recent years have contributed their share.

The great need today is that these treasures that constitute the American child's magic heritage be made available to children everywhere through the length and breadth of our land, North, East, South, West, in American schools, libraries, bookstores, and homes. Everything possible should be done in America to bring all children, regardless of race or of economic status, into contact with the distinguished books which combine the achievements of authors, artists, and craftsmen.

One who knows the ever-increasing wealth of children's picture books, picture-story books, and illustrated books for older boys and girls wonders how long it will be before parents, teachers, and librarians will see to it that provisions are made whereby more children can come into this magic heritage. And what a heritage it is, once we explore it!

Sharing Experiences. Guidance rather than teacher dictation should be operative in a modern school, free from the shackles of regimentation. In dealing with children's literature, guidance implies the sharing of teacher and pupil

can be highlighted. Automobile factories, lime kilns, coal mines, lumber mills, creameries, sugar beet mills, railroad centers, printing plants, tile factories, steel mills, and greenhouses are rich and varied sources of experience. Learning should begin at home.

Miss Fanchon Yeager has very ably described a situation in which excursions were used profitably to prepare the pupils for reading, (6, pp 20–21):

In a certain first-grade room, the early weeks of one school year were spent in a study of the farm. This topic was chosen because a number of children came from homes where very vital and interesting things were being done, potato digging, apple picking, and the harvesting of sugar beets Since most of the children had been on farms and were familiar with the common farm animals and various types of farm work, the experience might have been a very casual and unproductive one. In order to insure that new concepts and items of information would come out of the study for every child in the group, the teacher outlined the fundamental understandings which she desired the children to gain The teacher and the children then engaged in several days of discussion. The teacher read to the children interesting material on their level about farms The teacher and children looked at pictures, shared ideas and experiences. Then the trip was planned. Together the teacher and the children set up the goals for the trip Committees of children were appointed to be responsible for securing information on various phases of the trip such as

1. What farm animals are on Larry's farm?
2. How are these animals cared for?
3. What are they fed?
4. Where do they stay in warm weather? In cold weather?
5. How is the potato crop harvested? How are the potatoes picked up? Where are they taken after they are picked up?

Since the farm visited was one which existed in an irrigated section of the country, many ideas needed to be built up in this relation

After the trip, discussion periods followed, there were reports of committees, and an evaluation of the success of the trip Group

FIRST-HAND EXPERIENCE

Selection of Activity To develop backgrounds, a skilled teacher makes use of both within-the-classroom and outside-the-classroom possibilities. It isn't always necessary to take the children on a trip or an excursion in order to have a worthwhile experience, that is, if the classroom is not completely divorced from reality. *Planned* excursions have their place in a classroom program, but not all classroom experiences have to be secondhand. Local possibilities and class needs should be considered in deciding whether or not the experiences can be developed within the classroom or outside the classroom.

Teacher and class planning is essential to the successful interpretation of experiences All experiences should be planned co-operatively by teacher and pupils, because planning is a significant part of the experience for the pupils. The pupils should know *why* they are engaging in a given project, *what* to see or do, and *how* to do it. In short, purpose should characterize any class venture.

Organization of Activity. Following the final selection of the activity, one of the first steps is to outline the purposes of the venture This can be done during a discussion period in which the pupils dictate to the teacher a list of questions to be answered, and/or of items to collect, and places to visit One of the next steps is a listing of things to be done and an allocation of responsibilities for doing them For an excursion, there may be a letter to write or a telephone call to make in order to secure permission for the visitation To admit a pet to school there are problems of a cage and of care In addition, there may be some reading and discussion to do in order to be adequately prepared for a given activity. Then there will be serious discussion of how to act in a courteous manner on the excursion Adequate preparation develops an intelligent anticipation and prevents many possible social mishaps on the part of obstreperous individuals.

Summary of Activity The activity is not complete without some type of organized summary. Activities are of little value unless directed toward some need. Habits of courtesy that place life on a little higher plane are being neglected or developed at all times. Most school activities involve social contact not only among members of the class but also with others outside the classroom. One follow-up, therefore, will be a thank-you note or some other expression of appreciation to those who made the project possible The follow-up discussion will be made more profitable to both teacher and pupils if it is organized. Listing, or one-point outlines, may serve as means of summarizing. Other possibilities include dramatizations, "orange-box" movies of the trip, a frieze depicting some one important observation, a program for the children of another room, etc

TYPES OF ACTIVITIES

Excursions. Trips to points of interest in the community are one means of providing first-hand experiences and direct observation The teachers in many school systems have organized handbooks to guide them in selecting and evaluating appropriate excursions Time can be saved if regulations are clearly stated, if guides are known to be provided by appointment, and if teachers have found the excursion to be valuable for small children This systematic study of points of interest is, therefore, a total school job; one that is not to be tackled in a haphazard manner

Classes interested in science may find walks through the parks and countryside to be worth-while. Animals and plants have added significance when studied in an organized fashion.

Trips to the library, post office, fire and police stations, stores, broadcasting stations, express and telegraph offices, and the like can do much to clarify notions about community workers In some communities industrial excursions

can be highlighted. Automobile factories, lime kilns, coal mines, lumber mills, creameries, sugar beet mills, railroad centers, printing plants, tile factories, steel mills, and greenhouses are rich and varied sources of experience. Learning should begin at home.

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FIRST-HAND EXPERIENCE

Rochester, N.Y.

Public Schools

compositions were written to go with the pictures which had been taken on the trip and the children's own free illustrations

During the discussions and the group compositions, it was found that many "gaps" were present in the children's information They had seen potato digging, but as a group, were unaware of where the potatoes went after the digging process They had seen the picking of apples, but were not sure what happened after the apples were picked. They had seen cows, a few, but did not know how milk was taken from the cow to their homes

In order to satisfy the newly awakened interests, to complete the experience, to add new and worth-while information, further trips were necessary The group, during the following days, went to a potato warehouse and saw potatoes sorted, sacked, and weighed They saw them placed in a refrigerator car and experienced the coolness of the car first hand Later on when they encountered a reference to shipping milk in a refrigerator car they knew what that meant

In like manner the children went to a dairy farm and saw how milk was taken from the cows by a milking machine They saw the provisions for the care and cleaning of cows in a modern dairy barn, they found out what precautions are taken to insure the sanitary conveyance of milk to the customer, how milk is pasteurized, how bottles are washed and sterilized, how bottles are capped without contact of human hands

Since the tendency in much of the recent writing for children in the initial stage of reading has to do with social science, can there be any doubt that children prepared as these children were will have a richer background of meanings, thus, be better able to read with understanding than those children without this direct experience and to whom a farm is a rather vague combination of poor buildings, trees, and a few assorted domestic animals that you eat, milk, ride, or pet?

Arts and Crafts Activities When they satisfy the criteria, arts and crafts activities are valuable for bringing children into direct contact with things. They are especially valuable because there is sufficient space in most classrooms for them These activities include the making of friezes, housing facilities for animals, "orange-box" movies, booklets, puppets, lantern slides, toys, musical instruments, maps, charts, dioramas, panoramas, linoleum-block prints, carved objects from soap and wood, pottery, and the like. Carefully selected and directed arts and crafts activities afford a means for direct experiences and for expressing experiences within the classroom

Dr Louis V. Newkirk, a specialist in the field of arts and crafts at the elementary-school level, has some helpful comments and suggestions for teachers (15, pp. 4 and 6):

It is heartening to see that there has been an awakening on this matter among both teachers and administrators Handwork is now accepted by most educators as an essential part of the educational activities of modern elementary schools They recognize that its use is closely interwined with the normal learning activities of children and, hence, that it cannot be ignored if the best educational results are to be attained. In spite of this fundamental agreement, however, divergent thinking and trial-and-error methods in the use of handwork in schools have not been uncommon There is still evident a need for careful thinking on the subject and a more diversified knowledge of handwork and its use.

Handwork activities designed for leisure time do not always illustrate learning activities in the school They may be used primarily as hobby activities The teacher should help pupils to get started on their craft activities through school craft clubs and individual help But after a boy or girl has learned to tool leather or to knit, the activity should be carried on outside of school hours at home, in the home workshop, or in the club.

Science Experiments. In recent years, more attention has been paid to the possibility of science instruction for young children Many sources of information will be called on in the study of plants, animals, and other appropriate curriculum items. Here, as in all other activities, care should be used in selecting and evaluating science activities so that they do not represent a mere hobby of the teacher. In addition to systematic

instruction in science, provision should be made for sharing worth-while individual pupil interests with the class.

There is considerable to be learned from the care of plants in the classroom that will extend pupil backgrounds in a desirable direction. This is especially true for urban children. Contributions of bulbs, seeds, and slips usually are gladly made through the interested parents.

When properly cared for by the children, pets are a valuable addition to a classroom. The hatching of chickens and the care of rabbits, guinea pigs, ducks, pigeons, small alligators, and the like will contribute to the clarification of notions about them. Such activities can be used to increase eagerness for reading and to broaden interests.

A worth-while science experiment is described in a publication from Minneapolis Public Schools, September, 1940 issue (3, p 9):

Every sunny Friday at 10:30, our first-grade group takes a shadow record of a six-inch stick. A record of the lengthening and shortening shadows is kept. They have learned that the shadows lengthen until Christmas and then begin to grow shorter. They have learned that a shadow is caused by an object through which the sunlight cannot pass. They have also noted that the higher the sun, the shorter the shadow, and vice versa. The meaningful concepts which have grown out of this experience are: shadow, sun, longer, shorter, fall, winter, spring, cloudy, and sunny.

Social Experiences. In a sense, most activities in a modern classroom call for continuous social adjustments. In addition to these social adjustments in working situations, there is a "cultural" type of readiness to consider. The shrewd teacher capitalizes on holidays, birth-days, entertainments, and dramatic activities to further this type of social development. While not all of these learnings may contribute directly to the interpretation of the printed page, they are an integral part of the child's background and personality with which the teacher and his contemporaries must deal.

Summary

A rich background of experiences has several values to the reader. First, reading comprehension depends upon understanding of the things referred to. Other things being equal, reading comprehension, especially *critical interpretation*, is enhanced to the degree that the reader is familiar with the topic under discussion. Second, anticipation of meaning—a significant factor in rhythmical and efficient reading—becomes possible to the extent that there is a clear grasp of the basic concepts. Purpose and familiarity with the sources of the reading material are potent elements in anticipation of meaning. Third, the use of context clues for word recognition is dependent upon reader familiarity with the facts behind the words. Facility in the use of context clues permits the child to take in his natural stride those lexical conveniences, such as *of* and *but*, that cause beginners so much trouble. In addition, reversal errors—the most greatly overemphasized of reading difficulties—will offer fewer obstacles to the unpracticed reader when the use of context clues are a part of his stock in trade. In short, a broad and rich background of experiences is a crucial factor in reading achievement, contributing to critical interpretation, anticipat— of meaning, and the use of context

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> Reading is one of the language skills and is built to a large extent
> upon the background of verbal abilities which the child possesses
> before he starts to read. MARION MONROE (54, p 276)

Language Experiences

Variations in Ability. Facility in the use of oral language is a prime prerequisite to the development of reading ability. Within a given classroom, the pupils will range from those who are glib, overtalkative, and overaggressive to those who are shy, retiring, and awed by the flow of language from their contemporaries. One problem is to get some children to express themselves orally and another is to develop a type of language facility that produces effective communication.

In the past, some children have been frozen in their tracks by teachers who insisted on having an oral language period in which the defects of their presentations were made to overshadow the content of what was said. Any resemblance to life situations was purely coincidental. Through emotional conditioning, some pupils were convinced that they should neither be seen nor heard. Such situations are the antithesis of those that can be found in many modern schoolrooms.

Relation between Language Facility and Reading Ability. With very few exceptions, those pupils who have developed a reasonable facility in the use of language are successful achievers in reading activities. While language development cannot be forced, the teacher does have the responsibility of directing the child in his social activities so that maximum language facility is developed systematically. The acquisition of language facility is essential to readiness for reading but it does not insure success.

In discussing her work with a first grade, Miss Lula Wright emphasized the contribution of language development to readiness for reading (68, pp. 204-205):

Readiness for reading also develops through much use of and interest in language, through discussions and conversation, through listening to stories and verse and lingering over vivid, unique, or beautiful phrasing. Interest is heightened, too, through originating one's own stories and verse and plays. These first-grade children developed an interest in rhyming which added to their pleasure in the sounds of words and made them more conscious of the similarities and differences of words. In order that the beauties of prose and unrhymed poems might not be lost upon the children, the teacher, although encouraging this play with words, was careful not to let rhyming assume an undue importance.

The children learned to listen for expressive words which exactly fitted a meaning or added to the group pleasure in stories and verse of their own composition or in the composition of others. They grew increasingly sensitive to the use of words, which is a necessary preface to a satisfying start in learning to read.

The development of language facility involves the use of needs to give purpose to a given activity, the expansion of vocabulary until it is adequate for com-

munication about worth-while things within each child's experience, the development of a reasonable control over sentence structure, the development of ability to perceive relationships between language and facts, and the improvement of speech production. These aspects of language development are based on the pupil's background of information.

Reading, a Facet of Language

Emphasis on the unity of the language arts has been forcefully called to our attention by a number of factors First, remedial reading—the fad of the 1930's —has been useful in demonstrating that a reading disability is a part, in many instances, of a general language disability Second, the increasing emphasis on semantics—the likely fad of the 1940's —has further accentuated interpretation as a major problem in communication. This trend appears to be breaking down artificial barriers erected among the language arts Third, the gradually shifting philosophy of education is making intolerable the positions taken by those who assume that adequate language development can be brought about by the teaching of the language arts as separate "subjects."

In discussing the problem of meaning in the social studies, Dr Ernest Horn emphasized the need for a command of language skills (38, pp 137-138).

Since language is essential to thought, and since the data for building most of the student's ideas in the social studies are obtained from what he reads or hears, the command of language is indispensable So fundamental, indeed, is the part played by language that the entire instructional program should be organized so as to promote its effective use Every influence that encourages verbalism should be combated. From the earliest days at school students should be accustomed to regard words as signs only and to seek the meanings for which the signs stand They should develop those habits of critical reflection that safeguard their efforts to compre-

hend. They should be led to see that carelessness and inaccuracy in their own language, as well as in their interpretations of the language of others, make clear thinking impossible.

More recently Dr Paul McKee has emphasized the language basis of the school program (46, p. 255):

We need to realize that our schools are and will continue to be fundamentally *language* schools—to say nothing of the importance of effective language in life outside the school The great bulk of instruction takes place through the medium of language—through the pupil's reading or through his listening to others talk. All discussions and most testing take place by means of language; they involve the pupil's talking or writing It is imperative, therefore, that the pupil understand adequately the meaning of the language which he reads and hears, and that he learn to say and write what he means clearly, exactly, and correctly If a school's program in language fails, the bottom drops out of that school's entire offering (including social studies, science, and art) and the school becomes, as many schools have done, a monument to verbalism and loose thinking

Nature of Language The teacher is faced with two major problems in guiding the language development of the child teaching the child *how* to use language and teaching the child *when* to use language. Instruction on how to speak, read, and write is accepted as a part of the elementary-school program Some children experience difficulty in acquiring facility in the use of language, but fortunately most children learn readily There is, however, a grave danger that instruction is likely to be terminated when the child has met certain acceptable standards of how to speak, to read, and to write This danger arises sometimes in situations where emphasis is placed on speech drills, reading drills, and writing drills That is, the specific skills, abilities, and information are acquired in isolated learning situations and important attitudes toward the uses of language are allowed to go by the board. For example, Martin had a general language disability

in that he tended to stutter, he required special remedial reading instruction, and, of course, he could not spell and did not have sufficient control over sentence structure to communicate with others through writing. Many of these disabilities would have been overlooked, however, if he had been socialized to the point that he knew *when* to talk. Many of his bad manners stemmed out of his lack of training in this respect. Martin was helped in making larger adjustments by guiding him in acquiring habits of knowing *when* to talk as he was learning how to talk. In a larger sense, language is a social tool that must be formed and sharpened in social situations.

Language Readiness for Reading

Since reading is only one phase of language development, it follows that proficiency in oral language is one prime prerequisite to readiness for initial reading instruction. An appraisal of readiness for reading, then, should include an evaluation of the child's ability to understand how to use oral language. One of the best ways to study children is to observe them in action. The following is a brief guide suggested for the systematic observation of behavior:

I. Background of experience
  A. Does the child speak a foreign language in the home?
  B. Is he reasonably familiar with different types of *children's literature?*
  C. Is he reasonably familiar with his community?
  D. Does he have a reasonable fund of science information at his command?
II. Social adjustment in language situations
  A. Is the child a good listener?
    1. Does he appear to be genuinely interested in what someone else has to say?
    2. Does he evidence the ability to evaluate what is said?

B. Does he know when to contribute to a discussion?
  C. Can he follow oral directions,
    1 for one-step commissions?
    2. for two-step commissions?
III. Vocabulary
  A. Does the child evidence a control over the many uses of words?
  B. Does he attempt to use "new" words employed by teacher and classmates?
IV. Sentence structure
  A. Does the child have adequate control over complex and compound sentences as well as over simple sentences?
  B Does he use sentences of at least six or seven words in length?
V. Speech production
  A. Is the child reasonably free from defects of speech production?
  B Is his speech understood by his classmates?
VI. Hearing comprehension
  A Does the child understand stories read to him?
    1. Can he recall main ideas?
    2. Does he note details?
    3 Can he recall a sequence of events?
    4. Can he organize a story by painting an illustrative picture?
    5. Can he draw a conclusion?
    6 Can he anticipate a conclusion?
  B. Does the child have a hearing impairment?
VII. Visual comprehension
  A. Can the child interpret a picture sequence?
  B. Can he anticipate a conclusion in an incomplete picture sequence?
  C. Does he have a visual defect?

PURPOSEFUL LANGUAGE

Language Activities. Children learn to speak because they have needs to be satisfied by this form of communication. Purpose, not sheer repetition, is the significant governor of learning. Talk, in a sense, is secondary to that which is talked about. In a schoolroom, purposes for developing oral language ability include sharing pupil and teacher interests pertinent to a given topic, enjoyment

"WHY THE CHIMES RANG"

and incidental learning of poetry, discussing a given story, discussing a given topic following an excursion, dramatizing a story, and the like. As needs are used to characterize oral language activities, the shy and withdrawn pupils will soon learn to participate, the highly verbalized pupils will tend to become less wordy, and the development of abilities to deal with language-fact relationships will ensue.

Oral language needs can be satisfied in a normal manner through the following types of activities:

1 Conversations
2. Informal discussions
3 Telling and retelling stories
4 Relating anecdotes
5. Telling jokes
6 Proposing riddles
7. Dramatizing
8. Oral reports
9. Making announcements
10. Giving directions
11. Relaying messages
12. Telephoning
13. Presenting programs
14. Reading or reciting poetry
15. Choral speaking

In life outside the school, language is used to meet the communication needs of the individual. Language serves certain life purposes Since schoolroom experiences are a significant part of the child's life, the language activities therein should be characterized by purposing. This point of view has been ably summarized by Hockett and Jacobsen (36, p 83):

Much of the children's improvement in language abilities takes place in the discussion periods The requirements of an audience situation are fully met, each child wishes to take part, the others wish to hear him if he has a worthy contribution to offer and can present it effectively. Language is used for different purposes to present facts, to weigh the merits of a proposal, to argue for a line of action, and to share an experience through accurate, vivid description. Leadership and social approval go to those who can make effective use of language These rewards for effective use of language are the same through-

out life. They are not, however, the rewards that result when the only aim is to please the teacher.*

Realizing the fundamental importance of purpose in language situations, Miss Anna Naugle of State College, Pennsylvania, uses bulletin-board reminders such as this:

STORY HOUR

Story hour at 2 30 today.
Who will have a story for us?

HELPERS

I will be housekeeper	*Anne*
I will serve lunch	*Ellen*
I will feed Spotty.	*John*
I will be librarian.	*Grace*

VOCABULARY

Vocabulary and Experience. The child's speaking and listening vocabulary is a nexus, or master link, between the printed symbol and the referent, or the thing referred to. Communication becomes possible to the extent that language-fact relationships are developed. First, the thing talked about must be clear in the child's mind. Next, the child must have the language to refer to the thing talked about. The first is developed through a background of meaningful experiences; *the second, through profitable discussions* and more highly organized activities dealing with those experiences. This is another way of saying that the child "should be oriented first through observation and experience and then through verbalization" (30, p. 57). Vocabulary, as part of language structure, is a crucial factor in speaking, reading, and writing. Meanings have their roots in experience.

One reason why mentally retarded children cannot profit from typical reading activities is their lack of vocabulary. Reading comprehension, critical or otherwise, is denied those pupils who do not have even a listening familiarity with certain words One mentally retarded boy with a chronological age of eleven years was unable to understand a given sentence in a story because he had not

* From Hockett and Jacobsen *Modern Practices in the Elementary School* Copyright 1938 by Ginn and Company

text is required even to start in that direction. The word *dog* is a fairly common word in first-grade basal readers because the authors assume that the children have seen enough *dogs* to have basic notions about *dog*. Usually, however, the author has made certain that the symbol, or word, is backed by a picture of a particular dog. In short, the teacher must make clear that the symbol refers to, or stands for, the thing and that it does not stand for the whole thing.

A second pitfall is that of confusing inferences with descriptions. Initial language training should begin largely at the descriptive level. Policeman number one may be a jolly fellow who directs traffic near the school. Policeman number two may be a stern officer who arrested father for speeding. Policeman number three may be the pleasant gentleman who showed the children about the police station. These and other policemen can be discussed in descriptive language, but the symbol *policeman* is an inference from the sum total of all these descriptions. To prevent language-fact confusion, the teacher and pupils must develop an awareness of when descriptions are used and when the descriptive level has been left behind to deal with inferences.

The awareness of differences as well as similarities is important to both the semantics (meaning) and the mechanics of vocabulary development. It has been demonstrated briefly that a symbol stands for differences as well as similarities among things. Meaning is dependent upon differences. Likewise, word recognition skills are built on differences in configurations and details of words.

Danger of Verbalization. In the past, there has been the tendency in some school situations to encourage the development of sheer verbalization on the part of pupils. The inexperienced teacher is likely to fall victim to the self-reflexive nature of language; that is, she may be inclined to merely make words about words about more words and so on

of the devices often misused to bring about this abuse of language is the substitution of synonyms for descriptions Language must be related to facts. To tell the child who has never seen a monkey that a monkey is an animal does not give him a basis for the use of the word *monkey* If an item is worthy of the pupils' and teacher's time, then it deserves more attention than a mere substitution of words, a play on words. A live monkey not being available, a picture or some other means of representation plus description should be used to develop the child's notions of *monkey* "The danger of being too obvious is nothing compared with the immediate confusion and future misconceptions which come from premature assumptions of linguistic knowledge" (30, p 65). Training in sheer verbalization defeats the purposes of language instruction. The establishment of clear-cut language-fact relationships is the crux of the problem of language readiness for speaking, reading, and writing.

Class Discussion. Spontaneous free expressions of interests should be encouraged to develop rapport between teacher and pupils and among pupils, to develop facility of expression, to call attention to new words and terms, and to extend class interests. A family trip may have allowed an individual to have interesting and worth-while experiences which can be shared profitably with the rest of the class. A Christmas vacation spent in the South will usually stimulate a highly spirited discussion of Spanish moss, sponge gathering, big game fishing, remnants of last season's cotton crop, tobacco curing, trailer camps, and so on, while a child from the South who has visited in the northern states may have glowing tales to report of New York City's "canyons," ice skating, snowbanks, cold weather, steel mills, and the like. Through discussions of these experiences, new vocabulary is bound to be introduced because new facts are being discussed In the normal course of

for dramatizations. Pupils with language deficiencies, such as foreign backgrounds, are especially helped by these means.

Poetry. Properly directed, experiences with poetry can be delightful language events that develop both appreciations and facility. In these situations, expression and good speech habits can be developed quite naturally. On the other hand, naturalness is destroyed and beauty is exchanged for ugliness when the mere memorization of poetry is the goal of instruction. Children memorize poetry with ease when they really experience it. Good poetry well read will result in requests for repeat performances. It is in this type of repetition that retention is strengthened. Perhaps the teacher begins to repeat the poem with the children for sheer enjoyment. After the first line or two, some children will be able to lead on. Popular songs are "picked up" by high school and college students without effort. Likewise, children "pick up" poetry in an effortless manner in properly directed and motivated situations. Where this spirit exists, the prescribing of a required list of ten poems to be memorized is unnecessary, because the children will normally far exceed any authoritarian's requirements. True it is that not every child will know the same poems, but a teacher is not likely to bring worthless literature to their attention

Kibbe and Edlebeck give this account of their procedures for capitalizing on the children's interests in nursery rhymes (23, p. 323)

At the beginning of school, a border of pictures illustrating nursery rhymes was exhibited to attract the children's attention and to stimulate expression Each child was encouraged to select one of the pictures and to recite the corresponding rhyme. The most popular were "Jack Be Nimble," "Hickory Dickory Dock," and "Humpty Dumpty." The children showed appreciation of the rhythm, and within a week most of the group could say at least six complete rhymes. The border provided opportunity for the pupils to interpret pictures and to associate them with interesting poems. Class discussions disclosed the accuracy of concepts of such words as "meadow," and the general background of information possessed by each child Victrola records of the rhymes aided in securing group attention, developing a sense of rhythm, and stimulating expression thru group singing Much choral work helped to encourage participation by the more timid child

The following are some attempts at creative writing by first-grade children in Altoona, Pennsylvania. They were supplied by the teacher, Miss Helen Hannum

LOOK, LOOK

One, two, three
You can't find me
Look, look, look,
Here are we

Margaret Kerber

COME, COME, COME

Come, come, come,
Here I come.
Tum, tum, tum,
Hear my drum

Carole Dandrea

MY DOG

Mother puts him in the yard
And ties him to a tree
When he sees me coming,
He barks and jumps so happily

Mary Olmes

LITTLE PUPPIES

Eight little puppies
Jumping around in the yard
When my mother went out
They all barked so hard

Robert Roessing

MY KITTEN

My kitten
Sleeps in the house
When mother went upstairs
It saw a little mouse

William Lynch

Various types of educational games may be obtained from the following firms'

Child Welfare Publishers
Evanston, Illinois

Educational Playthings
20 East 69th Street
New York City, New York

L S Donaldson Company
6th & Nicollet
Minneapolis, Minnesota

Samuel Gabriel Sons & Company
200 Fifth Avenue
New York City, New York

Parker Brothers, Inc
200 Fifth Avenue
New York City, New York

In addition to good poetry and verse, simple rhymes have a strong appeal to children In their book called *Teeny Tiny Rimes*, published by Johnson Publishing Company, Allard and McCall captured some of these rhymes that children like to make up Some of these are:

The ball, the ball,
Ran down the hall.

Our mother cat
Is neat and fat.

At one time some authorities advocated the induction of pupils into reading through Mother Goose rhymes and surprising success was achieved in spite of the weird vocabulary. Of late some authors have achieved a degree of success with childhood expressions of language rhythm worked into initial reading materials These seminonsense rhymes heighten interest in language rhythm and contribute to the development of auditory discrimination.

Language Games. When used with caution, language games can be used to facilitate expression, to develop vocabulary, and to correct gross usage errors. There is very little, if any, evidence to support the use of language games Furthermore, some teachers use language games as another form of meaningless drill. For example, a child may parrot back along with the class the response, "he doesn't" and proceed to use "he don't" in his normal communication activities. It is with caution, indeed, that language games should be used.

Riddles are used often to develop descriptive powers and language facility Children forget themselves and usually engage in such activities with unbridled enthusiasm.

The following are some sample riddles reported by Miss Catherine Lipe (23, p. 476):

> It is a building.
> It has a flag on it.
> You mail letters there.
> Guess its name.

> He is a man.
> He rides a truck.
> He puts out fires
> He saves people
> Can you guess who this man is?

> It is a building
> Many beds are in it
> Sick people are made well there.
> What building is it?

LANGUAGE STRUCTURE

Sentence Sense. It is a truism that children should not be expected to *read* sentences before they have acquired facility in the *oral* use of sentences. Nevertheless, the case files in a reading clinic can provide ample evidence of such abortive attempts at language development. Many first-grade entrants are unable to express themselves in direct simple sentences. In a few instances this may be due to general mental retardation or parental encouragement of the persistence of baby talk. Where extreme mental retardation which precludes any extensive language development is not present, it behooves the teacher to provide for the systematic development of sentence sense.

No harm and much benefit can be derived from the incidental use of the term *sentence* in referring to a story or what someone has said. For example, "John's *sentence* would be a good one to close our invitations." Or, "This sentence tells what Jim did next." Soon the children will be using the term *sentence* quite as normally as any other word.

Picture books and the illustrations in primary books are excellent aids for developing facility in the use of simple sentences. In the beginning, the children may make a few drab statements of things seen by mere enumeration. With encouragement they later will be able to describe action and relationships. For example, they may report seeing only a boy, a dog, and a hoop, but with a little help they will see the boy jumping through a hoop. This ability to see relationships and to express them in sentences can be systematically developed.

Given the opportunity, children can manufacture some interesting stories, both mild and "tall." This encourages them to make use of sentences Retelling stories, and summarizing class, group, or individual projects provide additional means for developing sentence sense.

Organization of Information

One of the steps in the development of language facility is the extension of the ability to organize ideas through the perception of relationships. This includes opportunities to do problematic thinking, to carry a sequence of ideas in mind, to anticipate meaning, to summarize, to list, and the like. These possibilities stem out of the use of the bulletin board and blackboard; retelling stories; summarizing a project by means of an experience record; planning excursions, construction activities, science projects, etc.; planning dramatizations; making rhymes; use of the telephone; dictating and, perhaps, copying invitations and thank-you notes; and so on. Organization of information for use should be a significant element in a reading-readiness program.

Problem Solving. This ability calls for the relating of experiences, the interpretation of experiences, and the application of that background for determination of a course of action. Each new unit or subunit of activity should be initiated by a *listing* of the questions or problems to be solved. By this means, *purpose* dictates the problems to be solved as in life outside the school. The range of problems to be solved will, of course, vary from the concrete to the abstract. Approaching the concrete end of the scale

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Clark M Frazier, Bernice Bryan

Cheney, Wash.

will be questions concerned with the care of pets (such as a chicken or a rabbit) in the classroom, how plants grow from seeds, bulbs, and slips; the steps in a given process, such as the making of butter or cookies, the construction of a class project, such as a store, a simple model airplane, or a cage for an animal, and so on Other types of problems include how to write a letter of invitation to a school program, how to find out what various baby animals are called; how to conduct oneself at a party, and so forth The teacher who practices guidance rather than dictatorship will help the children identify and solve their problems, thereby contributing to the development of basic abilities.

Sequence of Ideas. Among other things, successful reading requires the carrying of a sequence of ideas in mind. Those pupils characterized by general mental retardation or by serious personality frustration are not likely to profit from too much emphasis on such a procedure. It is for this reason that types of learning aids other than reading must be used with these pupils On the other hand, most of the first-grade entrants need to have this type of development encouraged. Activities that provide experiences in carrying a sequence of ideas in mind

include sharing experiences and retelling stories, learning poetry, dramatizations, telling stories from a sequence of pictures, following directions in a simple science experiment, listing events in chronological order, making "orange-box" movie strips, following specific directions regarding the steps in construction activities, and the like.

Anticipation of Meaning. Rapid and rhythmical readers can anticipate meaning. This requires continuous and rapid reorientation to past experiences. This can be developed directly during the prereading period by a number of means. In the telling and reading of stories, the teacher can stop at a highly interesting point to have the pupils guess what is likely to happen next. This heightens interest, stimulates pupils to predict events, and builds for the use of context clues. Pupils also can be led to delight in this type of activity in sharing their experiences. Riddles—always a source of enjoyment—are valuable for developing the ability to foretell meaning. Rearranging a series of pictures that tell a sequence of events in a story re-enforces the anticipation of meaning. These and similar activities contribute to the development of the ability to anticipate meaning.

Summarizing. This is a basic organization ability in language. Through summaries, the pupil is required to reconstruct facts, which gives him a needed overview of a problem. Types of summaries include dictated lists (one-point outlines on charts or the blackboard) of questions or problems, of steps in a construction project or in a science experiment, of things to be done; a dictated summary of an experience, such as an excursion; a class program for another room or for parents; a class frieze depicting the steps in a project or a good summarizing scene; a paper movie strip to which each pupil has contributed one pertinent scene, and the dramatization of a story or the steps in a class project. It will be noted that summarization may

be done through words or pictorial representation of facts. In short, summarizing enters during the initiation of a class project, throughout the development of the project, and at the termination of it.

Miss Anna Naugle, first-grade teacher of State College, Pennsylvania, motivates her pupils through clear-cut and well-understood goals. The following is a summary type of chart that Miss Naugle developed with a group of now-we-are-sixes.

Speech Habits

Speech Patterns and Reading Ability One of the very important but most often neglected facets of language development is that of accurate speech production. Speech habits and auditory discrimination abilities appear to be highly related. Oral language as well as the mechanics of speech production are embraced by a broad view of the problem. In this sense, the development of desirable speech habits is one of the primary goals of language instruction. Speech is an aid in learning to read.

Since speech and reading are facets of language, speech patterns contribute to or impede the development of reading ability. When the child mispronounces words (such as *jist* for *just*), he is piling up learnings that interfere with rather than facilitate his learning to read. When a pupil slurs over his words and runs them together, he is likely to have difficulty in making visual discriminations during reading. If oral expression doesn't exceed words, phrases, and fragmentary sentences, then the child is hardly prepared for reading whole sentences and paragraphs. It will be seen, then, that

to hear and from which the child varies in
order to give meaning and feeling to what he
says

3 The third consideration is the quality of
the voice The voice should be clear, dis-
tinct, and free from huskiness, harshness and
an over-amount of nasality.

Authorities agree that a satisfactory voice
should be loud enough to be heard, should
be pitched in a natural key and should be
resonant and clear in quality.

Rhythm Normal speech is smooth and un-
interrupted Think of the rhythmical way we
say, "Good morning, how are you?" There is
no repetition of the first sound or syllable, as
"G-g-g-good morning", no undue prolonga-
tion of any given sound, as "How are y-ou";
and none of the pronounced muscular ten-
sion that the stutterer usually experiences

Articulation Satisfactory articulation in-
volves the accurate production of the various
speech sounds which we use as component
parts of words Children who consistently
substitute one sound for another (e g , *wittle*
for *little*, *wook* for *look*), or who omit certain
sounds (e g , *ba* for *ball*) are said to have an
articulatory disorder

In a discussion of correct speech stand-
ards, Louise Abney suggested (1)

The very young child, as well as the older
one, develops a more effective personality
when, in his oral expression, he observes cer-
tain speech rules which may be very simply
stated, or put in the form of equally simple
questions

Do I know what I am going to say? This
streamlines the speech, prevents rambling,
does away with superfluous words, and saves
time.

*Do I look at the children when I am talking to
them?* Directness and audience-contact are es-
sential if interest is to be held The evasive
eye and up-turned or downcast head have no
place in effective oral communication

Do I talk so that every child can hear me? This
is essentially a matter of volume or adequacy
of tone. No matter how good the content of a
talk may be, if the speaker cannot be heard,
he is ineffective

Do I talk so that every child can understand me?
This is a matter of articulation and pronun-
ciation

Do I keep my words apart? Rate of speech and
pause are speech principles underlying this
standard

Do I use a happy voice? Attitude and mood
are reflected in the tone which one uses It is
the voice with a smile which wins favor.

These standards have been listed in the
children's own words, and they came from
primary grades. A more advanced formula-
tion of speech standards may come from the
older children, but the basic principles in-
volved are applicable at all levels.

It is important to note that the ap-
praisal is made by the pupils under the
guidance of the teacher. Pupil confidence
is developed by emphasizing the *positive*
factors and going easy on the don'ts. As
teachers full well know, it is much easier
to find fault than it is to offer construc-
tive suggestions With this in mind,
Glantz and Cohee suggested these criteria
for evaluating discussions (46, p 260):

1. Be courteous
   Wait your turn
   Speak only when it is your turn.
2 Keep to the subject
3 Think before speaking
4 Speak in clear-cut sentences so that all
   can understand
5. Speak so that all can hear.
6 Use expressive words.

Robert Hill Lane offers these sug-
gestions regarding incidental conversa-
tion (45, pp 231-232):

The obstacles to good conversation need
to be eliminated Occasionally, one finds a
classroom displaying signs "No whispering"
or "Talk only when necessary" Occasionally
one finds a corner of the blackboard devoted
to lists of "whisperers" Now, whispering
should be discouraged but for other reasons
than the ones usually given Whispering is
"bad manners"—the person who whispers
deliberately excludes all but one person from
the conversation. Whispering has something
shameful about it; it is a sly and furtive thing
The child who has something to say in con-
fidence to another child calls far less attention
to himself by speaking in a low voice, dispels
the impression of secrecy, and actually dis-
turbs other children less The rule "Talk only
when necessary" would be absurd in any
social gathering and the class in a modern
school is a social group Often, the unexpected
thought, the bright and sparkling idea that
flashes into the mind, gives rise to a comment

which affords much pleasure to the group. Technically it may be totally unnecessary and actually, perfectly charming.

The members of the class should be helped to formulate sensible rules for the control of casual conversation so that it may be held within the limits of good taste and good judgment. One class made the following rules:

1. Give the other fellow a chance.
2. Be a good listener.
3. Avoid personalities.
4. Respect the opinions of others.
5. Do not let conversation interfere with work.

Games. Certain games often are found to be fruitful for stimulating interest in good speech habits. The building of jingles and rhymes also adds to the game interest in speech. *Pronunciation bees,* like spelling bees, are aids to the promotion of interest in speech, but can be overemphasized.

Speech Handicaps. Speech difficulties range all the way from errors in enunciation and articulation to stammering and cleft palate, from the functional to the organic. Poor speech habits are manifested in baby talk, lisping, nasality, faulty speech rhythm, mumbling, and generally careless articulation. Most speech difficulties probably can be handled by the classroom teacher. Some speech difficulties, however, may require the attention of a speech specialist. A clean bill of health written by a dentist and a specialist in ear, nose, and throat work should be required for every school entrant. Tonsils, adenoids, obstructions in the nose, tongue-tie, faulty bite and *dentition—the correction of these lies outside the professional province of both the teacher and the speech specialist.* On the other hand, it is the teacher's responsibility to suggest referral to the parents and, equally important, to follow up on that referral. Many teachers have found one or more professional courses in speech education to be essential to their success.

Inability to pronounce certain sounds

is a symptom used as one of the bases for getting at the cause. Baby talk—probably the most common functional difficulty of young children—is characterized by sound substitution, usually infantile in pattern. For baby talk or any other type of speech difficulty, the teacher should not heed the advice of those who suggest that the child will "just grow out of it."

Irene Poole Davis has summarized this information on "speech ages" (54, p. 283).

Consonant sounds develop in the speech of otherwise "normal" children in a well-ordered sequence. Other factors being usual, all such children have developed the ability to articulate consonant sounds in words at the following ages (the letters represent sounds, not spelling names):

3.5 years: *b*, *p*, *m*, *w*, and *h*
4.5 years: *d*, *t*, *n*, *g*, *k*, *ng*, and *y*
5.5 years: *f* and *v*, *z*, and *s*
6.5 years: *zh*, *sh*, *l*, *th* as in *then*, and *th* as in *thin*
8.0 years: *z*, *s*, *r*, and *wh*

Many children develop these sounds much earlier than the ages indicated, but not all children do so. These ages are the latest that can be considered usual for establishment of the consonant sounds in speech. The sounds of *z* and *s* are listed twice in the sequence because they appear consistently at four or five years of age, and then become distorted in a lisp when dentition causes a spacing between the teeth that makes normal production of the sibilant qualities of these sounds almost impossible. Most children correct this lisp without adult help after permanent dentition has appeared.

Lisping—the inaccurate production of sibilant sounds, such as *s* and *z*—is sometimes caused by a faulty formation of the teeth. The lingual protrusion lisp (faulty *s* and *z*) may develop when the child loses his first teeth. A lateral emission—when the tongue is curled back so that air is forced out between the sides of the teeth—is usually an organic defect caused by malformation of the teeth. A third type of lisping—nasal emission—may be caused by inadequate control of the soft palate.

Children with varying types of foreign

language handicaps also have difficulty in associating facts and sound with the visual symbols The teacher can build some racial pride in these children and at the same time explain the differences in the sounds of English and the foreign language.

Tongue-tie often can be corrected by a simple operation The fraenum is clipped to provide normal freedom of the tip of the tongue Of course, this must be followed with speech rehabilitation

Cleft, or open, palate—hard or soft—presents a surgical or dental problem. Speech rehabilitation usually includes exercises such as yawning and whistling After freedom of the soft palate has been established, work on individual sounds is initiated.

A hoarse voice (consecutive hoarseness or laryngitis) is usually a pathological impairment Pathological conditions of the larynx proper include paralysis of one or both cords, hemorrhage of vocal cords, chronic laryngitis, infection, and growths on the larynx This may be caused also by a pathological condition of the adjacent organs such as diseased tonsils or adenoids, chronic pharyngitis, infected sinuses, chronic nasal catarrh, and deviated nasal septum

Nasality usually results when nasal resonance is out of proportion to mouth resonance This may be caused by an abnormality in the nose, soft palate too low, or excessive fatigue For this, medical treatment is prescribed, followed by practice in relaxing the jaw and throat muscles

Denasalization is the term used to denote insufficient nasal resonance This may be caused by chronic catarrh, sinus infection, or diseased adenoids Medical treatment and corrective speech training are required

Correcting Speech Defects Since cases of stuttering usually involve emotional disorders, they should be dealt with under the guidance of a speech specialist Other types of speech defects which should be

referred to specialists include cleft palate speech, mutism, hoarseness, spastic speech, and the speech of the hard-of-hearing Too often these children are neglected so that difficulties continue to mount.

At this point, the teacher should be reminded that a differentiated speech program should result in the speech development of all of her pupils. Speech is not a subject that can be given a time allotment for the week, instead, speech as a language process permeates all school activities In this light, the teacher's problem is primarily one of speech development for all rather than the correction of extreme, and perhaps more dramatic, speech handicaps

In an article dealing with moto-kinaesthetic training for children with speech handicaps, Dr. Sara Stinchfield made the following recommendations (60, p 60)

The directing speech movements by an adult takes into consideration four factors not ordinarily considered in previous work on the psychology of speech development, or on books on phonetics, or in work with the hard-of-hearing Most of these have been exclusively auditory or visual In directing the speech of the child there is first, the place of movement, seeing that the child starts with the location for the speech sound, for instance not substituting a front-of-tongue t for a back-of-tongue k sound as in saying "tat" for "cat" Second, there is the form of movement, this includes the formation of lips, tongue, movements of soft palate, use of the teeth, and so forth, and may be indicated by pressure of the teacher's hand at certain parts of the speech mechanism. Third, there is the directing of movements by the teacher, so that the child learns the proper sequence of sounds in a word, blending the first consonant and vowel together and not learning separate, isolated sounds It would be wrong for a child to learn, for instance, to say c-a-t, when we want him to say ca-t, blending the vowel with the first and final consonant as in normal speech Fourth, the amount of pressure used in directing these movements, shows the child the difference between a voiced sound like b and a voiceless sound like b. Fifth, the timing of the movement must be

A COMMITTEE MAKES PLANS.

Rose Wathley *West Hartford, Conn.*

such that the word comes without delay and without undue speed; hesitation or rapid cluttered speech *may easily lead to stuttering* if the child is allowed to repeat or to prolong sounds unduly. Finally, the technique must be *so well learned by the teacher that the* movements are exact, skillful, and direct. Many a child can sense the word merely from the directed movements, *without hearing it* at all. He becomes literally a *muscle reader* instead of a *lip reader*, but he must read his *own muscles*, as well as those of the trainer.

In dealing with speech problems, the following items merit consideration:

1. Speech correction activities must deal with the whole child, his physiological, anatomical, and psychological limitations. Sensory defects, structural defects of the speech organs, environment, and general mental and physical health must be evaluated

2. Speech education should be preceded by a careful analysis of the difficulty.

3 The teacher should offer the child a good model of speech. This applies not only for the production of speech sounds but also in regard to such matters as emotional control. At no time should the teacher carry correctness and preciseness to an extreme.

4. Correct auditory perception precedes speech production. A child must be able to hear sounds correctly before he is expected to produce them correctly.

5. Defective speech may cause social maladjustment. Dr. Ollie Backus has made these pertinent comments (3, p. 117):

Because communication by speech is so basic in social relationships, any speech defect, be it mild or severe, renders the individual socially conspicuous. The degree to which this affects him adversely is not necessarily in direct proportion to the severity of the speech involvement. It depends upon three factors (a) the reaction of the patient to his own defect, (b) the reaction of others to the defect, and (c) the patient's reaction to the penalties imposed by other people because of it.

6 Defective speech may be caused by social maladjustment. Tensions and emotional conflicts may contribute to stuttering, a high-pitched voice, cluttering, and breathiness

Articulation Articulatory defects undoubtedly are the most common among school children These include sound substitutions, omissions, substitutions, distortions, and indistinctness. These defects may be detected by listening to the child's conversation or by using a selected list of pictures or objects for testing The teacher should pay particular attention to the consonant sounds because articulation defects usually do not involve vowel sounds.

Articulatory defects arise from the improper modification of the voice by the organs of the mouth and nose. The causes of articulatory defects are many and varied First, defective hearing may preclude the possibility of correct auditory perception. Second, structural defects may contribute to faulty articulation. These include loss of front teeth, malocclusions, tongue-tie, and the like. Third, injuries resulting in neurological

involvements may cause paralysis or may interfere with motor co-ordination Fourth, baby talk in the home may *encourage the development of articulatory defects.* Fifth, unconscious imitation of children or adults with speech defects may contribute. Sixth, low intelligence must be considered. Seventh, a poor physical condition during early childhood may cause speech development to be delayed. *The causes of a speech defect should be studied before attempting to correct them.*

The following is an outline for training an articulation case issued in mimeograph form by Dr. Harold Westlake, Division of Special Education, Pennsylvania Department of Public Instruction:

Outline for Training an Articulation Case

Step I. Analyze the child's speech. Make a list of all of the sounds which a child either omits, forms incorrectly, or substitutes.

A. For nonreaders use picture tests or question tests.

B For readers use lists of words or sen-

PRESENTING A MOVIE

R. W. Outland   Ottawa Hills, Ohio

tence tests which contain all of the phonetic elements.

C. After the list of mutilated or omitted sounds is complete, estimate the frequency of each error by listening to the child read or talk.

Step II. Select one sound to train at a time. There is some advantage in selecting these sounds in the order of their difficulty, which is often listed as *m, f, r, n, t, d, k, g, ch, sh, z, l, s, v,* progressing from the least difficult to the most difficult.

Step III. Teach the child to "hear" the difference between the correct and his incorrect speech forms.

A. For the child who reads:

1. Make a list of words containing the sound on which the child is working. Opposite each word spell the same word so as to indicate as nearly as possible the way the child would pronounce it as, *rake—wake* if he substitutes *w* for *r*. Read off both correct and incorrect forms and have him point to the form which you use.

2. Use the correct and incorrect forms referred to above in sentences and have the child point to the particular form of the word which you use.

3. Construct sentences in which the critical sounds are used, placing both the correct and incorrect forms in parentheses, as, "The cat caught a (*wat*), (*rat*)." Read the sentences aloud to the child, sometimes using the incorrect one. Have the child point to the particular form which you use.

B. For the child who does not read, as well as for the one who reads:

1. Point to pictures or objects whose names contain the sound which is being trained. Sometimes pronounce the names correctly, and sometimes pronounce them as the child would pronounce them. Have him tell you whether what you said in each case is right or wrong. If the procedure is difficult for the child at the beginning, it is often useful to prolong the correct or incorrect sounds on which

you want him to focus his attention.

2. Make sentences about the same pictures and objects using the correct pronunciation at one time and the child's incorrect one at another. Have the child tell you whether or not the form which you use is correct.

3. Repeat words containing the sound on which you are working, prolonging the critical sound. Have the child give you the number of times which the particular sound is used in the word, and tell you whether the sound occurs in the beginning, the middle, or the end of the word.

4. Repeat the same exercise without prolonging the critical sound.

5. Make short statements in which the critical sound is used. After you finish the statement have the child clap his hands to indicate the number of times he heard the critical sound.

6. Read or tell stories. Have the child raise his hand each time he hears the sound which is being trained.

Step IV. Teach the child to produce the sound.

A. Repeat the sound in isolation several times and then have the child repeat the sound after you. Wherever possible connect the sound with an environmental sound, as the *s* may be formed in isolation by imitating the hiss of a boiling tea kettle.

B. If the suggestion A does not result in the correct production of the sound after several days' trial, demonstrate the production of the sound as well as you can by using mirrors and having the child get any cues he can by feeling the escaping air, or watching you produce the sound.

C. When the child can produce the sound in isolation, combine the sounds with the short and long forms of the vowels *a, e, i, o, u* to form nonsense syllables. Use the consonant in the initial (kā), medial (ākā), and final (āk) position.

D. When the child can form the sound

easily in the nonsense syllable, have him use the sound in words These words may be repeated after the teacher, read aloud from lists, or sets of pictures or objects may be used to furnish the stimulus

E. After the child uses the new sound successfully in words, extend the practice to include sentences, oral reading, and conversation

Step V Help the child to introduce the new sound in his regular speech pattern.

A Build certain nucleus situations. Plan situations with the child in which he will use the new sound in oral reading or recitation in one particular class. After he has used one nucleus situation successfully for several days, add a second nucleus situation to his school program

B After he handles both nucleus situations with ease on several different days, one can feel safe in correcting the child whenever he makes an error on the trained sound. The other teachers and the parents should also be encouraged to correct the child at this stage.

Relaxation One of the major problems involved in speech education is that of relaxation General relaxation is especially important in treating stutterers and cases of spastic speech. The child with a high-pitched voice or one who clutters also must be taught how to relax General relaxation usually will decrease muscle tension in all muscle groups Often, however, it is necessary to teach the child how to relax the muscles of speech production.

Psychological factors play a dominant role in relaxation Nervous strain is increased when the child is placed in speech situations for which he is not adequate. The ensuing loss of prestige with his contemporaries often results in being teased and bullied. Then, too, tensions mount when the teacher is excitable, hurried, and impatient. By reducing tensions in the environment, the teacher can control to no small degree the psychological factors in relaxation

Teachers interested in delving deeply into the technical aspects of this problem of relaxation will find a rich fund of professional information in these two references:

Jacobson, Edmund. *Progressive Relaxation* Chicago, Illinois: The University of Chicago Press. Revised 1938

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Keep good models of enunciation and pronunciation before the pupils

Help the children to list correct speech standards and to keep them in mind.

Encourage the use of normal conversational rate and tone.

Help the children to develop sound attitudes toward speech

Encourage the development of interests in speech sounds

Within reasonable limits, stimulate interest in games and pronunciation bees

Where serious speech disorders are present, do not hesitate to solicit the help of a specialist immediately.

Summary

The major points in this chapter are summarized in the following statements

I. Oral language facility is the chief basis on which readiness for reading is developed.

II. Other things being equal, oral language facility may be developed.

III. Language development follows an orderly order.

IV. In order to teach the child *how* and *when* to use language, these skills and abilities should be developed in social situations.

V. Vocabulary should be developed through experience; that is, language must be related to facts, or experience, in order to avoid verbalization.

VI. Children must learn to be good listeners as well as practiced speakers.

VII. During a useful reading-readiness

period, the children should acquire a "feeling" for language structure.

VIII. Many defective speech habits may be cared for by the classroom teacher. Extreme speech defects require the attention of specialists.

IX. Because good speech models are highly important, the teacher should appraise her own speech habits.

X. Goals for good speech should be developed co-operatively by the pupils.

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to a given situation. What he perceives and the meaning he derives from hearing speech sounds or observing visual symbols depends upon the purposes which motivate the activity and his previous experiences. While the ear is essential to hearing, it is not sufficient to determine what is heard. Likewise, the eyes are essential for seeing, but they are not sufficient to determine what is seen. In making visual and auditory discrimination, the total nervous system is called into play (45, p. 140).

The ability to discriminate between the forms of words and between the sounds of words is a prerequisite to the development of word perception. This ability to note likenesses and differences *among word forms is related to retention,* or memory. When the child is a poor observer of likenesses and differences among things, and among word forms, he is likely to have considerable difficulty in acquiring a stock of sight words during initial reading instruction.

DEVELOPMENT OF DISCRIMINATION

Upon admission to the first grade, the average child is no novice in making auditory and visual discriminations. Very early in life, he became conscious of differences in his environment. He learned to note differences among people and things in his environment. These differences involved general appearances and details of father, mother, brother, and sister. Differences among things were noted in such items as milk bottle, spoon, and chair. In early childhood, many of these differences noted were of a non-verbal nature, i.e., they did not involve language.

Soon, however, the child began to observe differences among speech noises made by those about him. These speech noises were related to things about him and, therefore, the meaning they had for him facilitated the noting of differences. As the environment acted upon his nervous system, further differentiation took place. Experimentation at making speech noises and inner maturation made it possible for the child to use words, phrases, and sentences. Visual and auditory discriminations were reenforced by kinaesthetic, olfactory, and other experiences. The young child soon became well acquainted with his environment.

In a discussion of sensory and perceptual learning, Dr. Elden Bond describes how sensory experiences assume meaning as the child learns to discriminate among related details in a total situation (40, pp 199-200):

Perception commences as a conscious response to a total situation that has some meaning for the infant Observations substantiate the hypothesis that the infant gradually learns to discriminate significant elements in total situations. For example, on every pleasant day little Jack was taken for a ride in his carriage immediately after he had awakened from his afternoon nap He soon learned to smile when his mother started to get him ready for the trip At length, he began to point at the baby carriage and to make "fussing noises" if preparations for the outing were delayed. At first he appeared to be indifferent about who took care of him Within two months he appeared to make preferential movements toward his mother He seemed to be able to distinguish his mother's voice from those of other members of the household by the time he was four or five months of age. Observations on little Jack confirmed the hypothesis that vague patterns of sensory experience became more and more clearly perceived in a discriminative, selective fashion as he matured and learned to adjust himself to his environment.

Perceiving, like all other types of learning, is developed through repeated experiences. Perceptions tend to become more precise, and the child learns to attend more closely to those parts of his environment which have meaning for him. Accompanying the improvement in perceptual ability is a development in awareness of the services which his perceptions bring to him. Gradually, through perceptions, he acquires some understanding of the world and his place in it. Throughout his development, and in fact during his entire life span, he learns to make perceptions that are increasingly selective and purposeful.

Visual and Auditory Discrimination

Children should be able to recognize likenesses and differences in pictures, forms, colors, letters, numbers, words, phrases, sentences, and sounds before they confront the more complex problems in a reading situation Considerable attention should be given, therefore, to the development of perceptual abilities before reading is introduced   J Wayne Wrightstone (47, p. 24)

Discrimination and Perception

Definitions and Descriptions In Warren's *Dictionary of Psychology* (43, p 196), *perception* is defined as "the awareness of external objects, qualities, or relations, which ensues directly upon sensory processes, as distinguished from *memory* or other central processes" In this same volume, a *percept* is defined as "the object of perception, i e , the thing perceived" and "a single perceptive act or response, i e., what is known of an object in perceiving it" The term *discrimination* is defined (43, p 80) as "perception of difference between two or more objects in respect to certain characteristics applied usually to quantitative differences."

Discrimination is a process of differentiation; perception is a higher level process of recognition For example, visual discrimination is a prerequisite to the visual perception, or recognition, of words in the reading process. A pupil who can discriminate between the forms of words is a good observer Some children, for one reason or a combination of reasons, do not make accurate observations regarding the likenesses and differences between word forms. Visual discrimination is based on trained observational skills.

In a recent book on *Educational Psychology*, the authors point out the importance of differentiation as a process (16, p. 338).

Responding to wholes only, without distinguishing details and their relations, has very limited value in experience In learning to read, for instance, some words may be distinguished from one another by their general outlines This form of recognition has limited usefulness, however, for different words may have essentially similar configurations. Discrimination, therefore, depends upon noting the detailed characteristics and differences in words

Necessities of adjustment determine the extent to which differentiation occurs. The necessity for directing energy upon specific objects, or at specific points—hitting a golf ball, for example—causes a narrowing and specificity of response Likewise, certain aspects of the stimulus field, certain as original whole, are sorted out as the critical occasions for the response. Differentiation occurs, therefore, both in perceiving the situation and in reacting to it.

In this discussion, special emphasis is placed on visual and auditory discrimination' visual discrimination between the *forms* of words and auditory discrimination between the *sounds* of words However, visual and auditory discrimination must not be conceived as separate entities The child reacts as a total organism

short, discontinuous movements as each line of type is read.

A very good reader will make three or four fixation pauses, or stops, on each line. Because the good reader does not stop very long during each fixation pause and because he doesn't make very many fixation pauses in each line, the good reader can read from 400 to 1200 words each minute. Furthermore, the good reader is likely to comprehend more about what he has read than a poor reader. This is true, in part, because the poor reader who makes 10, 20, or even 100 fixation stops on each line is bogged down with word-recognition or other difficulties In other words, the poor reader makes many fixation pauses per line and very often takes a long "look-see" during each pause. The poor reader also looks back, or makes regressive movements, often in order to pick up the thread of thought.

In reading clinics and many doctors' offices, a device is used to photograph eye movements during reading. This device is called an Ophthalmograph and is manufactured by the American Optical Company of Southbridge, Massachusetts. In the classroom, the teacher may observe eye movements by looking over the top of the book as the child reads.

Poor reading habits cause the individual to use faulty eye movements. In other words, inefficient eye movements are symptoms of poor reading habits. Inefficient eye movements, like vocalization, cannot be improved by telling the child to do better. Instead, the teacher must guide the child in the development of visual discrimination, word recognition, and other skills and abilities so that efficient eye movements will be used.

CAUSES OF INADEQUATE VISUAL PERCEPTION

There are several reasons why a child may have difficulty in making visual discriminations between word forms Hence, instruction always should be preceded by an analysis of the difficulty. The fol-

AN OPHTHALMOGRAPH
Courtesy of American Optical Co   Southbridge, Mass.

lowing is a brief discussion of each of the possible major causes of inadequate visual perception.

Defective Vision Before a child is labeled dull because of an inability to perceive or to remember words, a visual analysis should be made by a competent vision specialist or by a reading clinic specialist. The routine *eye* examination sometimes made by an eye physician or eye specialist is inadequate because *vision* is not appraised A child's *eyes* may be normal but he may not *see* properly. Hence, the need for both an *eye* examination and a *visual* analysis. This phase of the problem is discussed in some detail in the chapter on Visual Readiness for Reading.

The first consideration in appraising vision in relationship to visual discrimina-

Other things being equal, visual and auditory discrimination can be developed In other words, the teacher does not need to postpone reading instruction and await evidences of these skills and abilities. There is no clear-cut line of demarcation between visual discrimination and word perception, or recognition. First, the child is taught to discriminate among word forms. In short, he is taught to be a good observer of those likenesses and differences among word forms that supply the necessary clues to differentiation. Second, after the child has acquired reasonable facility in differentiating word forms, he is given further training through systematic instruction in word perception. That is, he receives additional training in visual discrimination as he acquires control over the more complex and subtle aspects of reading.

Development Through Systematic Guidance. Since this whole problem of visual and auditory discrimination is closely linked with other factors in readiness for reading, there is the possibility of giving too much training too soon. If the child lacks the necessary general mental maturity, these somewhat "mechanical" aspects of reading may be overemphasized. When this happens, the semantic, or meaning, aspects of reading are likely to be put in second place and poor reading results. On the other hand, the most common danger in the past has been too little attention too late. These possibilities add up to this: visual and auditory discrimination should be appraised in relationship to other factors in readiness for reading; children deficient in these respects should be given systematic guidance for the development of visual and auditory discrimination skills in meaningful situations.

Visual Discrimination

The ability to make visual discriminations between word forms is a basic reading ability. To have this ability, however,

does not insure success with reading activities. If the child can see singly and clearly and if he has at least fairly normal intelligence, the abilities and skills required to make visual discriminations can be developed. Instruction in this respect then becomes one of the responsibilities of the teacher.

Gross configuration (or shape of the word) and details are used by children for discriminating between word forms. These observational skills should be developed in meaningful situations. It is possible to develop these skills in nonsense situations, but the teacher can hit two birds with one stone by developing visual discrimination as a part of reading ability.

Dr. Samuel Renshaw has made these significant statements regarding the role of visual perception in language ability (38, p. 13):

Many children who have great difficulty in learning to read also have great difficulty in being able to read quickly and accurately perceive shapes or visual forms. It can be set down as a fact that whenever an individual can really *see* an English word he can spell it. By seeing I mean that he must recognize and produce the word not as an aggregate of single letters The word becomes an essential unity. Skill in seeing means that the whole word, regardless of the number of letters comprising it, is seen as a single shape. When this skill has been attained, learning to spell words becomes surprisingly simple and invariably accurate, and at the same time reading will be found to benefit proportionately without any special attention being given to it. The perception of groups of words comprising sentences or phrases can become a coherent, perceptual unity, just as an aggregate of single letters can and does become a unitary word.

Eye Movements. A brief mention will be made here about eye movements during reading. Approximately five or six per cent of reading time is required for making eye movements. The remainder of the reading time is spent on fixation pauses, or stops. The eyes make

dren of America is a hopeful one, indeed.

Inadequate Background of Experience. In professional publications in reading instruction, it has been pointed out repeatedly that reading is a "taking-to" process. In regard to the development of visual discrimination this has two important implications. First, the child must have a sufficient background of experience pertinent to a given selection to insure adequate working concepts. A part of the process of perception is the association of meaning with the printed symbol. Second, the child must have had considerable experience in making visual discriminations. When these experiences are lacking, children may be conspicuously slow in analyzing details and re-acting discriminatingly to small or subtle differences among word forms.

Lack of Mental Maturity. A lack of general mental maturity and, therefore, a lack of general readiness for reading may be a factor in perceptual difficulties. This factor may be appraised by means of a general intelligence test, such as the Stanford Revision of the Binet, or by means of a reading-readiness test which any competent teacher can administer. If the mental processes of a child have not reached a sufficient level of maturity, he cannot be expected to perceive likenesses and differences among word forms.

There is also the possibility of a child's being able to discriminate among words and still not be ready for reading. While essential to success in reading, visual discrimination ability is a low level prerequisite. Among other factors, a wide background of experience and oral language facility are essential to the interpretation of printed symbols.

General mental immaturity often plays a major role in reading situations characterized by reversals. Children who have difficulty in discriminating between words such as *saw* and *was*, *on* and *no*, *put* and *but*, *bone* and *done*, and *big* and *pig* should be candidates for a test of general mental ability. However, there are pupils who make reversal errors because they do not read for meaning.

Associative Learning Handicaps. A very small percentage of the school population is handicapped by special language disabilities. Among other things, these children have defects in visual memory for words and in associating meaning with symbols. Some of these cases may be screened out by means of the *Gates Diagnostic Tests*, the *Van Wagenen Reading Readiness Tests*, and the *Betts Ready-to-Read Tests*. However, this type of handicap must be analyzed by a reading clinic specialist with the co-operation of a competent neurologist.

Training in Adequate Visual Discrimination. Other things being equal, the ability to discriminate between word forms can be developed under teacher guidance. Activities for the development of this ability include (1) demonstration of left-to-right progression in viewing words, phrases, and sentences, (2) word matching games, and (3) constructing and using picture dictionaries. Occasionally it is necessary to resort to kinaesthetic techniques (10). During the initial stages of reading, the child is concerned with the acquisition of a sight vocabulary. Visual discrimination is sharpened by teaching him to use context clues, configuration clues, rhythm clues, and picture clues. As soon as the child has acquired a sufficient stock of sight words to be able to read for meaning, visual perception is further developed by systematic instruction in word analysis. Word-analysis activities based on phonetic principles are followed by activities dealing with syllabication. In the main, visual discrimination for word forms is developed through systematic guidance.

Appraisal of Visual Discrimination

In the appendix at the end of this book, will be found a list of standardized tests which may be used to screen out

tion for word forms is this: Can the child see *clearly* at all working distances? This requires tests of visual acuity, or clearness, at blackboard distance (twenty feet), at chart distance (forty inches), and at book reading distance (about thirteen to sixteen inches). A child may see clearly at one of these distances but he may be unable to see clearly at one of the other distances. Hence, the teacher should either have the tests made or she should make these tests herself.

A second consideration is this: Can the child's ability to see singly at all working distances? A child may tend to see double at reading distance and not at blackboard distance, and *vice versa*. Since these tests of singleness of vision are not made by all doctors licensed to fit glasses, there is a grave danger of this important factor being overlooked. Fortunately, the teacher can make some very simple tests to detect this type of visual handicap. (See the chapter on Visual Readiness for Reading.)

A third consideration is the relationship between the functions of seeing clearly and singly. Since these two functions must work in harmony for sustained seeing activities such as reading, it is highly important that the relationship should be appraised. Some optometrists and a few ophthalmologists are prepared to take and to interpret findings of this kind. (The Reading Clinic of The Pennsylvania State College has a list of doctors who are prepared and equipped to make a complete visual analysis.) Findings of this type must be made before "drops" are used to paralyze certain muscles of the eye. In fact, a complete visual analysis is made without using "drops" in the eye.

All children should be required to have a complete visual analysis before admission to school. Many eye doctors and vision specialists are taking postgraduate courses to learn how to make a visual analysis. In these courses, they are learning about visual readiness for reading, the development of visual skills and visual perception, and especially, the visual tasks of school children. The outlook, in this respect, for the school chil-

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test. Key words for this test are those from the Betts *Vocabulary Study of Fourteen Preprimers* which were used in nine or more basal series of readers. The alternate words were used in six or more series of readers.

Directions for Group Test: "Put your marker over the line of words like this (demonstrate). You will see that all the words are alike except one. One is not like the others. Find the one not like the others. Now draw a line around it." After this is done, "Move your marker down to the next line. Draw a line around the one word not like the others." Proceed in like manner with each succeeding line.

Directions for Individual Test: "Here is a line of words. All of them are alike except one. One is not like the others. Point to the one in this line that is not like the others." Proceed in like manner with each succeeding line.

CLASSMATES IN SILHOUETTE

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words were selected by the same procedure used in the preceding sample.

Directions for Group Test: "Put your marker over the first line of words like this (demonstrate). Look at the first word on the line. Now find another word on the line that is just like the first one. Draw a line around it." Proceed in like manner for each succeeding line.

Directions for Individual Test: "Here is a line of words. Look at the first word. Now find another word just like it. Point to the word that is like the first word." Proceed in like manner with each succeeding line.

away	away	mother	away	away
good	here	good	good	good
we	we	we	said	we
house	house	want	house	house
to	what	what	what	house
big	big	big	big	for
too	little	too	too	too
see	am	am	am	am
are	are	are	go	am
can	can	can	can	father
did	did	come	did	did
is	he	he	he	he
doll	doll	doll	will	doll
up	in	up	up	up
want	want	want	want	you
find	find	the	find	find
me	have	have	have	have
jump	jump	jump	with	have
run	not	run	run	run
down	down	down	down	play

INFORMAL TEST:

VISUAL DISCRIMINATION

The following is a sample of a matching type of visual discrimination test which may be devised by the teacher to screen out those pupils deficient in this respect. The key words and alternate

mother	away	like	mother	find
here	good	this		down
said	said	big	have	went
want	we	run	want	doll
to	house	good	jump	to
for	what	for	look	like
little	little	am	play	train
see	too	ride	see	we
go	are	jump	oh	go
father	can	father	saw	this
come	did	come	house	funny
is	he	look	is	ride
will	doll	little	big	will
in	up	in	have	he
you	want	no	you	am
the	the	find	saw	good
me	have	can	are	me
with	jump	with	house	find
not	not	run	he	did
play	down	ride	away	play

children with visual deficiencies and to analyze difficulties

In a study of *Methods of Determining Reading Readiness*, Gates, Bond, and Russell made these conclusions and observations regarding the relationship of visual perception as measured by reading-readiness tests and later reading ability (15, p 16):

> . it is apparent that word-perception tests offer the highest correlations with later reading abilities

The kindergarten and first-grade children who knew the most letter forms and sounds tended very definitely to be among the first to learn to read and to be the best readers Conversely, the children who were ignorant of, or much confused about, letter forms and sounds, tended very definitely to be the poor readers.

These findings indicate the positive relationship between visual perception and ability to learn to read However, they should not be interpreted as meaning that a child should be taught to recognize the letters of the alphabet before systematic instruction in reading is initiated

Informal Tests. Through observations and informal tests, the teacher can detect those children who are deficient in visual discrimination. In using experience records, some pupils have no difficulty in matching word forms while a few will exhibit difficulty in this respect. A competent teacher takes her cues from the behavior of the child.

If the standardized tests of visual discrimination are not available, the teacher may devise a fairly satisfactory one. Probably one of the best sources of words for the test is to be found in the back of the preprimers to be used The words should be typed on a typewriter with primer or jumbo size type or lettered by hand A guide or marker for the child may be cut from a piece of oak tag about three inches wide and somewhat longer than the test page is wide. A slot, or window, is cut out of the marker so that one line of words may be exposed at one time.

INFORMAL TEST:
WORD DISCRIMINATION

The following is a survey type of test presented here to show the form of the

B. Lower-Case Letters

d	e	d	n	o
f	n	t	l	f
w	k	s	w	i
e	e	s	m	b
y	i	p	y	g
a	r	a	c	r
h	g	e	w	h
r	p	f	r	d
c	c	d	n	o
g	t	g	t	j
p	l	k	p	s
b	e	b	i	g
m	m	w	c	r
i	a	h	y	i
s	s	f	e	w
k	y	f	k	d
l	l	h	m	b
t	p	t	g	c
o	c	p	r	o
n	m	h	a	n

ADMINISTRATION OF TESTS

In administering tests of visual discrimination it is important to remember that they are tests of discrimination and not of perception, or recognition. The purpose of these tests is to appraise those skills required to use likeness and difference cues for discrimination purposes. Hence, it is neither necessary nor desirable to expect the child to pronounce the word or the letter.

Developing Visual Discrimination

In discussing the appraisal and development of factors in reading readiness, there is always the very real danger of treating each factor as a separate entity. Reading-readiness factors are inextricably interrelated. Visual discrimination skills and abilities must be developed in situations that are meaningful to the child. For example, labels, experience records, bulletin-board displays, and blackboard notices are used as vehicles of developing basic notions about reading, visual discrimination, background of experience, language facility, and so on. The chief reason for calling attention to the

factors in readiness for reading is to facilitate the appraisal of readiness for reading and to define the instructional jobs.

Mere drill on visual discrimination is not sufficient to develop readiness for reading because reading is a very complex process. The chief emphasis in the reading-readiness program which blends into initial instruction in reading should be on the development of comprehension. If the teacher were to drill the child on discrimination between pictures, geometric forms, and words, she would not achieve the goals of reading readiness. Learnings are achieved when the activities have significance to the learner. The ultimate goal of reading instruction is the getting of meaning.

The following are some basic principles and assumptions to be observed in developing visual discrimination.

Interest. The activity should challenge and extend worth-while interests. For example, making a scrapbook about different types of airplanes may develop worth-while interests in transportation.

Purpose. The activity should help the child solve a personal problem, or it should be a means through which he contributes help on a group problem. For example, the classification and labeling of an exhibit may answer some of the questions raised by a group.

Meaning. The activity should contribute to the child's understanding of a problem. For example, making a list of questions on which information is to be obtained on a field trip aids the child in remembering what he plans to observe.

Observation. The activity should assist the child in the acquisition of techniques of observation. For example, the development of an experience record should call attention to left-to-right progression, and the differences among the configurations of words. It is highly important to teach the child to observe likenesses as well as differences in word forms.

Needs. It is a truism that education is most effective when individual needs are

LETTER DISCRIMINATION TEST

For those children who do not do well on a word discrimination test, a letter discrimination test may provide valuable information. The following is a sample of this type of test

Directions for Group Test: "Put your marker over the first row of letters like this (demonstrate). You will see that all the letters are alike except one. One is *not like the others.* Find the one not like the others Now draw a line around it."
After this is done, "Move your marker down to the next line. Draw a line around the one letter not like the others" Proceed in like manner with each succeeding line

Directions for Individual Test "Here is a line of letters All of them are alike except one. One is not like the others. Point to the one in this line that is not like the others." Do the same with each line

r	p	p	p	p
d	t	d	c	d
t	t	g	t	t
j	p	e	j	l
b	e	e	e	e
w	m	w	w	w
a	a	a	j	a
f	a	s	f	f
k	y	y	y	y
h	h	y	h	l
p	p	t	p	p
c	p	c	o	c
m	m	m	m	m

LETTER DISCRIMINATION TEST

The following is a letter discrimination test using a matching technique.

Directions for Group Test: "Put your marker over the first line on the line. (Like this) Look at the first letter on the line. Now find another letter on the line that is just like the first one. Draw a line around it." Proceed in like manner with each succeeding line.

Directions for Individual Test "Here is a line of letters. Look at the first letter. Now find another letter just like it. Point to the letter that is like the first letter" Proceed in like manner with each succeeding line.

A. Capital Letters

E	E	D	E	E
T	T	T	T	R
K	K	K	W	K
S	S	F	S	S
M	M	P	M	M
B	B	A	B	B
H	C	L	L	L
U	N	U	U	U
O	O	O	C	O
D	D	D	G	D
R	R	S	R	R
B	W	W	W	B
P	K	W	P	P
A	A	A	A	H
N	N	N	N	I
H	D	H	H	H
O	D	D	D	O
W	W	W	T	W
F	F	F	E	F
U	C	C	C	U

B. Lower-Case Letters

e	e	d	e	e
n	e	e	e	f
w	k	k	k	k
s	i	i	s	s
i	r	i	y	i
g	h	g	g	g

A. Capital Letters

D	‖	R	E	B	D	O
O	‖	N	N	I	W	N
W	‖	F	I	T	T	B
F	‖	S	F	N	B	K
P	‖	M	K	H	S	K
A	‖	B	A	H	R	F
N	‖	U	W	N	U	F
O	‖	G	D	B	L	I
S	‖	C	H	S	E	N
B	‖	R	H	L	K	B
E	‖	P	M	L	E	P
L	‖	N	T	H	W	P
I	‖	M	L	I	O	E
O	‖	T	F	O	R	T
W	‖	E	F	U	R	S
U	‖	U	E	C	R	B

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details. Some children, for example, report that they remember the word *mother* because the o stands out. Demonstration, discussion, and practice in meaningful situations are necessary in order to learn how to use discrimination cues.

Third, labeling objects and preparing labels for pictures in booklets calls attention to similarities and differences between word forms. In these instances, the words usually are written on the blackboard at the request of the pupil. When the child copies the word for this purpose, he is given legitimate practice in noting the letter details of the word.

SENTENCE DISCRIMINATION

Some elementary knowledge of language structure usually is acquired before systematic instruction is initiated. In developing and using experience records, the child hears the word *sentence* used by the teacher and he soon begins to use the term in his discussions. For example, the teacher may ask, "Should this *sentence* be put first?" or, "Who can give us a *sentence* that tells what we saw first?" Before

many children can do much reading, they have observed that a sentence begins with a big letter and that there is some kind of punctuation mark that tells where the sentence ends.

ACTIVITIES FOR DEVELOPING DISCRIMINATION

The following activities for the development of discrimination will be found useful:

Experience Records. Class or individual-dictated compositions such as invitations, thank-you notes, lists for plans, and the like are fruitful materials for calling attention to differences between words. Making a calendar and keeping a record of the days by marking them off encourages left-to-right observational habits and encourages discrimination between and recognition of numbers. Keeping weather reports stimulates an interest in symbols.

Bulletin-board Displays. Through the contribution to and arrangement of bulletin-board displays, visual discrimination is developed incidentally and systematically.

identified and met Every teacher in the kindergarten and primary grades is faced with the problem of providing for individual differences in needs One of the common ways to meet this problem is through grouping. After the groups are formed, the teacher, then, is confronted with the problem of materials and activities Many of the activities described herein are suitable for individual and small group work It is highly important for the teacher to keep her grouping flexible Children should be shifted from one group to another in terms of their specific needs

Miss Delia E. Kibbe makes this recommendation (27, pp. 12–13)'

Schools should provide training to assist children in developing necessary habits of visual discrimination Opportunity to compare objects of easily discoverable likenesses or differences should be compared first This should be followed by a comparison of objects which require gradually finer and keener powers of discrimination Finally, children should be able to distinguish between words of similar printed forms before being introduced to actual reading situations

LEFT-TO-RIGHT PROGRESSION

Investigation of the observational habits of children in viewing pictures indicate that there is no reason to believe they have acquired left-to-right habits Children must learn left-to-right progression in the reading process This is one very important instructional job.

There are several ways to foster the development of left-to-right progression across the page First, the teacher should seize every opportunity to demonstrate this progression In developing experience records, the teacher should call attention to the fact that she always writes from left to right because people read from left to right Second, in viewing a sequence of pictures, the children should be instructed to "read" from left to right in order to find out what happened next. This instruction can be given in connection with picture books, picture sequences in reading-readiness books, "orange-box" movie strips prepared by the children, and the like. Third, in revising and rereading experience records and in dealing with the reading of beginning books, the teacher should explain left-to-right progression in reading sentences and words. Fourth, when the child is first taught to write or to recognize his own name, attention should be directed to the left-to-right progression. Fifth, in reading experience records and blackboard notices the teacher can emphasize left-to-right progression by sweeping the pointer from left to right below each sentence as it is being considered. Systematic guidance in developing habits of left-to-right progression in viewing picture sequences and in reading is essential orientation Reversal errors (such as confusing *saw* and *was*) and other types of confusions may be prevented by systematic guidance during the prereading and initial reading periods.

WORD DISCRIMINATION

Some children require careful guidance in establishing control over the cues to differences among word forms. These pupils can be helped in a number of ways First, the teacher should call attention to the differences in the configuration, or total shape, of words. After the teacher has assured herself that the pupils know the difference in meanings between *dog* and *puppy*, she may call attention to differences in the lengths of words by drawing a straight line frame around each word This demonstration may be followed by an informal pupil discussion of the differences between the lengths of other pairs of words.

Second, the teacher should call attention to differences in the distinguishing details of words For example, a straight line frame may be drawn around *dog* and *eat* to call attention to the ascending and descending letters Here again, the pupils should be encouraged to point out how they can tell the differences between words by comparing and contrasting

NOTING LIKENESSES AND DIFFERENCES

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Vegetable and other discarded mail order catalogues may be used by the children to select vegetables, vehicles, animals, and other items that are alike. After the pupils have grouped their pictures, they may make up "games" by pasting on each line of a sheet of paper four objects that are alike and one that is different These "games" may be exchanged among the pupils with the instruction to draw a line around each picture that is not like the others in each row.

For more mature pupils, the teacher may use word-matching activities For example, words beginning with the same letter may be put together in a picture dictionary. The pupils' names may be arranged in alphabetical order (Note that the alphabet is not taught at this time.)

Sorting activities require visual discrimination and may be used to foster its development Pictures of animals, vegetables, airplanes, automobiles, ships, and the like may be classified by putting them into special boxes. Leaves from oaks, maple trees, peach trees, and the like may be classified for an exhibit. In every classroom, there usually are a number of classification jobs that should be done by the children rather than the teacher

Discussions Visual discrimination and memory may be enhanced by discussions in which likenesses and differences between objects and pictures are pointed out Observational powers are improved when attention is directed to differences between the heights of desks, chairs, pictures, and the like. Furthermore, language facility is promoted.

Reversals in Reading

Activities such as those described above do much to prevent reversal tendencies which are common among young children These pupils tend to confuse *p, b,* and *q,* and pairs of words such as *saw, was, on, no* In some cases this indi-

cates an immaturity. In other cases, the child may not be reading for meaning or he may have a severe language disability. Adequate guidance based on a study of the cause or causes will usually bring about adequate orientation. In rare instances, this may be a symptom of a serious language disability.

Recently, less emphasis has been placed on the study of reversal errors in the analysis of reading difficulties for a *number of reasons:* First, a substantial percentage of six-year-old children in first grade have been found to exhibit reversal errors in their reading. Davidson (6), Teegarden (42), Jones (28), and others have found that about sixty per cent of beginning first-grade pupils tend to make these errors. Second, only about ten per cent or less of the responses of retarded readers are characterized by reversals. This tendency in reading situations appears to have been greatly overemphasized. Third, reversal errors appear to be *symptoms* rather than *causes* of reading difficulties.

TYPES OF REVERSAL ERRORS

Strephosymbolia, meaning "twisted symbols," is a term used by Orton (37, p. 71) to designate "a striking tendency to distorted order in the recall of letters." He calls individuals exhibiting this type of behavior in reading *strephosymbolics*. However, *most workers in this field have* not adopted the use of this term because less emphasis is placed on reversal tendencies in the diagnostic procedure. Reversals constitute only a small sampling of the types of word-recognition errors made by retarded readers.

Confusions of *single letters* similar in configuration are called *static* reversal errors. Examples of this type of error include saying *pig* for *dig, bad* for *pad, but* for *put,* and *big* for *pig* Confusions on *b, p, d,* and *q* are most common; *n* and *u* also are often confused, the individual saying *mouth* for *month.* Static reversals represent reversed or inverted orientation of letters.

Confusions characterized by a reversal of the sequence of letters in a word are called *kinetic* reversals. Errors of this type include saying *on* for *no, saw* for *was, tub* for *but, dab* for *bad, god* for *dog, nip* for *pin,* and *pal* for *lep.* In addition, some individuals transpose and reverse letters and combinations of letters *within* the word, saying *chew* for *chew, how* for *who,* and *felt* for *left* In short, a right-to-left sequence in reading is preferred for the *palindromic,* or *reversible,* words. Kinetic reversals represent a reversed sequence of letters.

Transposition of words in a sentence *is a third type of reversal error.* Kinetic reversals, static reversals, and transposition of words in a sentence sometimes are associated with facility in mirror reading.

ASSOCIATED BEHAVIOR

Reversal errors usually do not loom large among a number of types of inadequate behavior in reading situations. *The following sometimes are associated with reversal tendencies:*

I. Faulty concept of reading
II. Low comprehension
III. Failure to read for meaning
    A. Inability to anticipate meaning
    B. Inability to use context clues for word recognition
IV. Frequent mispronunciations
    A. Guessing
    B. Addition of words
    C. Substitution of words
    D. Lack of systematic word-recognition techniques
    E. Lack of versatility in use of word-recognition techniques
V. Inadequate orientation for left-to-right progression
    A. For words
    B. For sequence of words
VI. Word-by-word reading
VII. Lack of interest in reading activities
VIII. Overdependence on the teacher
IX. Excessive number of fixations per line
X. Defective spelling habits

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otor control in handwriting

in mirror reading

OF REVERSAL ERRORS

ing list of possible causes of reversal errors at once suggests the findings that should be taken.

I Mental immaturity
II Faulty word-recognition techniques
  A Lack of control over techniques for recognition of sight words
  B. Too early introduction to word-analysis techniques
  C Lack of systematic instruction in terms of individual needs
III Use of inappropriate materials
  A. Use of materials foreign to pupil interests
  B Teacher failure to help pupil develop interests in materials used
  C. Excessive vocabulary burden
IV. Erroneous, or no, concept of reading
V. Inability to read for meaning
  A. Lack of purpose
  B. Inadequate background of information
VI Associative learning disorders
VII. Laterality confusions
  A. Peripheral confusions
  B. Central confusion
  C. Lack of systematic left-to-right progression
VIII. Faulty seeing habits
  A. Lack of clearness of focus
  B. Triangulation, or convergence inadequacies
  C. Faulty accommodation-convergence relationship

In a study of "Reversal Tendencies in Reading," Gates and Bennett (17, 19) concluded

Known visual defects, therefore, existed with twice the frequency in the Reversals as in the Non-Reversals Group Further study of the degree and type of visual defects of such pupils is indicated as a promising means of revealing causes of reversal tendency Indeed, considering merely these bare data, it would appear that visual defects of some

sort or sorts is the most conspicuous characteristic of the Reversal Group thus far found

Hildreth (23, p 382) concludes:

Defective vision may be a contributing factor in reading disability, both on account of distortion or vagueness of visually perceived word and letter forms, as well as tension, fatigue, strain, or nervousness resulting from compensatory effort.

Conclusions. From this discussion of reversal errors, certain conclusions may be stated as follows

1. Reversal errors are symptoms of a reading handicap and are only one element in a syndrome

2 The frequency of the reversal tendency among normal children should allay fears of mental abnormality.

3 The incidence of reversal errors tends to decrease with an increase in mental maturity and experience.

4 The tendency to make reversal errors is no greater among left-handed children than among right-handed children.

5 No one single cause can be used to account for all reversal errors.

6 Nonreaders and cases of extreme retardation in reading require individual instruction.

Goals of Instruction in Visual Discrimination

This phase of systematic instruction to develop readiness for reading deals with discrimination between word forms. Some of the goals are stated as follows

1. Habit of examining words and sentences in a left-to-right progression

2. Skill in making accurate return sweeps from the end of one line to the beginning of the next line

3 Habit of proceeding from the top of the page to the bottom of the page

4 Knowledge of the difference between a word and a sentence

5. Ability to discriminate between the total configurations of words

6. Ability to use distinguishing charac-

teristics of words to discriminate between word forms

7. Habit of verifying word recognition responses through use of context clues (Note: This goal leads into word recognition.)

The ability to note likenesses and differences among the forms of words is basic to the development of higher level word-recognition skills. Training in visual discrimination is, therefore, continuous from the reading-readiness period until the child no longer receives systematic instruction in reading. Higher level skills include visual analysis, syllabication, and dictionary usage.

Auditory Discrimination

The ability to discriminate between speech sounds is a basic factor in language readiness for reading. Inability to make accurate auditory discriminations may be caused by a hearing impairment, a perceptual disability, or the lack of experience. Fortunately the means are available to screen out the first two causes and most of the pupils can profit from well-planned developmental activities. This type of developmental work is sometimes called "ear training."

The professional literature on auditory discrimination as a factor in reading readiness is meager. There appears to be a need for a careful investigation of auditory discrimination in relation to speech development and word recognition.

CAUSES OF INADEQUATE AUDITORY PERCEPTION

A child may be experiencing difficulties in discriminating between the sounds of words for several reasons. This makes it mandatory for the teacher to analyze the child's needs before initiating instruction. The following is a brief discussion of each of the possible major causes of inadequate auditory perception.

Hearing Impairments. It is all too easy to label a child as a dullard when he may be handicapped by an undetected hearing impairment. If a child cannot hear the speech sounds, of course he cannot learn to discriminate between them. Every child has a right to some type of group or individual audiometer test upon admission to the school. When these devices are not available, the teacher should assume the responsibility for administering an informal test of hearing (See the chapter on Auditory Readiness for Reading.)

Inadequate Background of Experience. Children reared in homes where a foreign language is spoken may not have had much experience with the sounds of the English language, and, therefore, they are sometimes handicapped in auditory discrimination activities. Some degree of facility in the use of the English language is a prerequisite to successful participation in sound discrimination. Then, too, meager experiences in a limited home and community environment may have narrowed the child's experiences so that the vocabulary used in word discrimination activities stands for things outside his experience.

Lack of Mental Maturity. This deficiency reflected in a short memory span, meager vocabulary, inability to perceive relationships, and the like may preclude the possibility of much success in reading activities. Because reading is a thinking process, mental maturity is an essential prerequisite.

Associative Learning Handicaps. Occasionally a pupil is discovered who has unusual difficulty in associating meaning with spoken symbols. This type of case, however, is usually a problem for the neurologist.

Appraisal of Auditory Discrimination

In the appendix at the end of this book will be found a list of standardized tests which may be used for screening

out children with auditory discrimination deficiencies and for analyzing difficulties.

INFORMAL TESTS AND OBSERVATIONS

Specific needs of individual pupils in regard to sound discrimination may be identified by means of informal tests and systematic observations. Informal tests of sound discrimination can be made by asking for words that rhyme with a given pair of words such as *goat* and *boat*, by asking for words that begin like *Bob* and *boy*, and by asking children to use words such as *which* and *witch* in sentences.

In making systematic observations, the teacher should consider these questions:

1. Does the child tend to watch the speaker's lips?

2. Does the child tend to run his words together?

3. Does the child tend to mispronounce words? (e.g., saying *wch* for *which* and *playn'* for *playing*)

4. Does the child have difficulty in suggesting appropriate rhyming words?

5. Does the child have difficulty in noting likenesses and differences between the initial consonants of words?

6. Does the child have difficulty in responding to high, medium, or low tones in rhythm activities?

7. Does the child have difficulty in keeping time in rhythm activities?

8. Does the child have difficulty in following directions?

Dr Wrightstone makes these suggestions regarding the informal appraisal of sound discrimination needs (47, pp 24–25).

Sound discrimination, like auditory acuity, is difficult to measure in six-year-old children Most attempts are dependent on the enunciation of the examiner Gates, Monroe, and Betts include tests of sound discrimination in their batteries of reading-readiness tests Many teachers use devices in the classroom which assist in estimating the child's ability to discriminate sounds In a given exercise the child finds the pictures of all words that begin with the same initial sound, or he may find the pictures of words that rhyme He

may, in a game, point to the picture of the thing that the teacher names when she gives a slowed-up pronunciation, such as c-a-t The measurement of ability to discriminate sounds is important because the results indicate to the teacher the significance of each child's ability to master phonetics as they contribute to reading skills Furthermore, the results sometimes give clues concerning children who should be referred for individual tests of hearing

Developing Auditory Discrimination

The following are some basic principles and assumptions to be observed in developing auditory discrimination (See also suggestions given in this respect for developing visual discrimination.)

Oral Activities Until the child has acquired an adequate stock of sight words, auditory discrimination activities should be strictly oral. The child should have considerable experience with word forms in reading activities before he is introduced to intricacies of associating speech sounds with the letters of word forms.

True Sound Values. At all times, the child should hear the natural pronunciation of words Attempts to teach the child sound discrimination by sounding out the letters of words are without justification For example, when the word *cat* is sounded out letter by letter, the listener usually hears *cuh a tuh* which is a far cry from how the word sounds in normal speech.

Likenesses and Differences Developmental activities for auditory discrimination should emphasize both likenesses and differences in the sounds of words When rhyming activities are overemphasized, differences in the sounds of words are neglected.

Initial Consonants In order to emphasize left-to-right progression, likenesses and differences between the initial consonants of words should be taught first.

Individual Needs. Instruction in auditory discrimination should be differentiated in terms of individual needs. Not all children in a given class will re-

quire instruction in this respect, and the individual needs of those who do need help are not always the same. For example, some pupils may require more guidance in discriminating between the initial sounds of words than on final sounds.

In appraising and developing auditory discrimination, the teacher should avoid distorting the sounds of speech. Frequently advice is given to use "slowed-up" pronunciation. When the letters of the word form are overemphasized, the sounds of speech are likely to be dis-

dren Third, those pupils inclined to slur over their words can be encouraged to speak more slowly In general, attention can be called to the fact that these expressions are made up of words. The important prerequisite is to make sure that the pupils say *separate words as well* as hear them Unnatural speech should be avoided

Activities for Developing Discrimination. The following activities will be of help in developing sound discrimination.

1. Hearing Sounds. Some children have not acquired accurate discrimination

GOOD LIGHTING HELPS THE HARD OF HEARING.

Superior School   *East Cleveland, Ohio*

torted beyond recognition. The goals of sound discrimination *are not likely to* be achieved in such situations.

Some children run their speech together so that they are not aware that certain phrases are words For example, *whatisit, whatdyasay,* and the like become, in a sense, words to them. Breaking down these habits of long standing requires patience on the part of the teacher. In the first place, the teacher must set up models of careful, but normal, speech, because speech habits are imitated, especially those of a teacher whom the pupils like Second, attention can be called in general to the running together of *words* and a statement of this standard can be formulated by the chil-

skills because they either do not hear the sounds or they do not listen attentively. This aspect of auditory discrimination can be checked in two ways. First, the teacher can tap on a desk while the children close their eyes to listen The children count the number of taps. Interest is heightened when the rate and rhythm of tapping is varied. Second, the teacher or a pupil claps his hands or two pieces of wood together while the pupils close their eyes. The pupils respond by telling the number of claps or by clapping their hands the same number of times and with the same rhythm.

2. Games. Many games have been devised for developing sound discrimination. These games require following direc-

tions, listening to musical notes and sounds, and identifying sounds.

The "Who is it?" game is popular among children. This game is played by seating the children in a circle around a blindfolded pupil. This pupil points at someone in the circle and says, "Who is it?" The child pointed to says, "It is I." The blindfolded child must identify the other child's name from his voice.

Another game is played by hiding a loud-ticking clock in the classroom. The children point in the direction they believe the clock to be. The fun comes in learning who was right.

3. *Musical Tones.* Incidental to dealing with the discrimination between the sounds of words is the discrimination of musical tones. A number of phonographic recordings of music for children are available. After some familiarity with several tunes has been achieved, the pupils can have a delightful and worthwhile experience in identifying the selection played or in listening for repetitions of phrases. Of course, the same goals can be achieved with a piano or some other musical instrument.

Interest in listening for tones may be heightened by including some physical activity. As the piano or phonograph is played, the children may be taught to indicate high, middle, and low tones by the position of their hands. When high notes are played, they hold their hands high above their heads. Low tones are recognized when they hold their hands low. While doing this, they may skip or hop to the music, always stopping when the music stops.

On this topic, the teacher will find the following reference to be a rich source of information:

Bathurst, Effie. *Phonograph Records as an Aid to Learning in Rural and Elementary Schools.* Albany, New York: State Department of Education, The University of the State of New York, 1943.

4. *Jingles and Rhymes.* Listening to jingles and rhymes is always a delightful ex-

perience for primary-school children. From the beginning, the teacher should stimulate interest in rhymes and jingles by reading them to the children. Pupil participation in the teacher's reading of the rhymes should be promoted. Some successful teachers encourage the pupils to clap their hands on the rhyming words. Others get the pupils to join in on the rhyming words. Requests for rereading afford an excellent opportunity for the children to say the rhyme with the teacher or to complete the rhyme. Listening to rhymes may be followed up by pupil contributions of their own creation. Activities of this type direct attention to the final sounds of words.

Making rhymes and simple verse heightens interest in literature and contributes to auditory discrimination. In addition, pupils can be helped by giving them four or five words all but one of which rhyme and by letting them find the rhyming words and the one that does not rhyme (e.g., *hat, cat, bat, Sam, sat*).

Because it may be easier to interest children in rhyming words, there is a real possibility in overemphasizing word endings. However, the teacher can watch this point by providing a balanced program of noting differences as well as similarities between the sounds of words. This can be done two ways: First, by directing attention to the differences in the final sounds of nonrhyming words; second, by calling attention to the differences in the initial sounds of rhyming words.

5. *Imitating Sounds.* Listening to and imitating the sounds of animals, birds, machines, and other things can be used to develop the ability to discriminate between sounds. These range from the *tick-tock* of the clock and the *ch-ch-choo* of the train through to the *peep peep* of a chick and the *moo* of the cow.

6. *Initial Sounds.* There are a number of ways to teach children to discriminate between the initial consonants of words. In working on this aspect of auditory

Francis Brown "SEE OUR PUPPETS." Ottawa Hills, Ohio

discrimination, it is important for the pupils to hear the initial sounds contrasted and compared by the teacher or pupil and to experiment with saying the sounds. Another important consideration is that of speaking the sounds naturally. If the *m* in *man* is distorted, the pupils acquire wrong concepts of sounds.

One source of words for demonstrating and experimenting with initial sounds is the class roll. The names of members of the class can be used to teach them that *John* begins like *Jim* and *Mary* begins like *Madge*. They should learn by contrasting sounds that *Jim* does not begin like *Mary*. From the names of the class members, attention can be directed to other words in their vocabularies, such as *man* and *money*.

Games can be played with groups of three, four, or five words. For example, the teacher may pronounce *doll*, *cat*, and *dog* and ask the pupils to tell which two words began with the same sound. The children may also contribute pairs of words that begin alike.

The children should be encouraged to collect pictures of things with names that begin with the same sound. These pictures may be sorted into boxes decorated with a picture giving a cue to the sound or they may be mounted on charts. In small group activities, the children can be taught to listen to some beginning sound in each picture.

Goals of Instruction in Developing Auditory Discrimination

This phase of readiness for reading deals with the skills and abilities required for discrimination between the sounds of words. Auditory discrimination is a crucial aspect of oral language development. *Goals of instruction in auditory discrimination include the following items.*

I. *Awareness of word elements in a sentence*

II. *Ability to discriminate between the likenesses and differences in the sounds of words*

A Ability to recognize identical sounds
1 initial sounds
2 final sounds

B Ability to distinguish between closely related sounds

III Ability to pronounce, enunciate, and articulate words accurately (See chapter on Language Facility)

IV. Ability to follow directions

Summary

A reasonable degree of skill in auditory and visual discrimination appears to be essential to readiness for reading Important points in this chapter are summarized in the following statements

I Visual discrimination between word forms rather than the recognition of the visual symbols is the chief problem during the prereading period During the initial reading period and thereafter, both visual discrimination and word recognition are developed simultaneously.

II. Inadequate visual perception skills may be caused by defective vision, inadequate background of experience, a lack of mental maturity, associative learning handicaps, and a lack of training in observation.

III Inadequate auditory perception may be caused by a hearing impairment, an inadequate background of experience, a lack of mental maturity, and associative learning handicaps

IV. Visual and auditory discrimination may be appraised by means of standardized tests or informal procedures.

V. Other things being equal, visual and auditory discrimination skills can be developed through systematic guidance based on individual needs.

VI. In developing visual discrimination, consideration should be given to likenesses and differences between objects, pictures, and words.

VII In developing auditory discrimination, consideration should be given to speech habits and the noting of likenesses and differences between both initial and final sounds.

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V Other things being equal, visual and auditory discrimination skills can be developed through systematic guidance based on individual needs.

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✦ CHAPTER XIX ✦

Parent Contributions

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The people will have the kind of school they want.

CLIFFORD WOODY (28, p 481)

Attitudes

American schools are referred to frequently as reading schools. And woe be unto the pupil who is deficient in reading ability, for his general educational progress is beset with the sharp thorns of discouragement, the ragged rocks of misunderstanding, and the insurmountable and formidable wall of reading materials beyond his grasp, obstructing his view of the larger and fuller life. Eighty to ninety per cent of the study activities at the high-school level require substantial reading ability, while the enriched program of the modern elementary school and the introduction of specialized materials in arithmetic, social studies, and science in the lower grades places a high premium on the command of fundamental reading processes. In short, the retarded reader is denied access to a vital approach to successful achievement in his vocational and recreational life. It may be traditional to expect a certain percentage of failures in school and in life outside of the school, but enough evidence has been accumulated on this problem to cause both laymen and professional people to ask: "How can we co-operate with the educators to rescue the learner?"

Parents have been educated for generations, probably by teachers and ex-teachers, to the notion that all children should learn to read upon entrance to the first grade. While many educators

now know that this notion is based on erroneous assumptions, too few parents have been let in on this information. As a result, there are home pressures on both teachers and pupils to disregard the established facts of child development and to force some pupils into language situations for which they are not prepared. The path of the child is fraught with serious dangers when the school program is allowed to run too far ahead of parent understandings. In the past, parents were educated to expect all children to learn to read in the first grade; now educators must assume the responsibilities for parent re-education.

The cause of parent skepticism has been summarized very ably by Dr. Ruth Streitz (27, p. 185):

Many adults are skeptical of the work of the elementary school. When they find practices differing from those they experienced in childhood they immediately begin to question the new. They never question the old. Little do these same people realize the tremendous amount of labor that has gone into painstaking research so that the modern school may have its foundation rest upon sound scientific facts.

In public schools of the past and now in a reading clinic, the writer has worked with cases resulting from misdirection or a total lack of guidance. Ted, for example, was a fine looking boy of nine years who had been unsuccessful in reading activities for four years. An analysis of the problem revealed these

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upon as a service agency to the community. Better schools, and therefore better service, are developed to the extent that parents desire improvement. If the assumptions basic to reading readiness are valid, then they can be presented in a nonpedaguese or basic English that is understandable to laymen That is the responsibility of the educator.

In a discussion of the basic axioms to be considered in a program of school evaluation, Dr. Clifford Woody emphasized that "the people will have the kind of school they want" (28, p 481):

The people pay the taxes, they elect the boards of education, the supervisors and school officials; in the long run the people decide the kind of school they desire The superintendent, school officials and teachers may attempt innovations in the educational process, but unless the people are convinced of the wisdom of such innovations both the innovations and the agencies which fostered them will be eliminated Such conditions make it imperative that school officials and teachers create understanding among the people concerning new values in education. Educational statesmanship demands that the school shall be a community enterprise built through the cooperative participation of the people, teachers, and school officials. While the school officials and teachers may exercise effective leadership, the people, in the long run, will determine whether or not such leadership is acceptable Thus if the school officials and teachers wish to stress new values in education, they must create demands for such values among the people.

CONFERENCES WITH PARENTS

Answering Parents' Questions. The writer has had a number of years of experience in dealing with parents on problems of reading readiness and reading difficulties. It has been found that glowing generalities carry very little weight with most parents They want to know what this newfangled business is all about, i e., the basic concepts. They want to know what facts are available as a basis for judgment They want to know what they should and should not do in the home regarding the matter. When these questions can

be answered satisfactorily there can be co-operation based on understanding.

Miss Lucile Harrison summarizes the problem of parental attitudes in this way (25, p 271)

Many of the most severe problems of the readiness program arise from a lack of knowledge on the part of parents as to the nature of the reading program and of reading readiness. Teachers, as specialists, are quite at fault if parents remain uninformed. The writer has found that parents wish to be informed and are usually very enthusiastic in helping carry out the readiness program in all of its aspects They are usually quite eager to cooperate in creating right attitudes toward reading during the preparatory period They are equally anxious, in most cases, that their children be withheld from reading instruction if that is advisable, provided they understand the facts of the situation A very important part of the preparatory program, then, includes preparing the parent for his part in that program.

An individual pupil folder containing pertinent data on his development is essential for parent conferences Successful conferences cannot be based on hazy recollections of fragmentary bits of information. In the guidance folder, test data, anecdotal records, and other pertinent information are kept. Teaching is preceded by learning the child. Unless steps have been taken to learn crucial facts about the child's development, the educator is not in a position to teach the child or to provide parental guidance. In a well-run school or guidance clinic, the facts are secured first, then action is taken in terms of the facts. Parents want facts, and teacher conferences with parents are, for the most part, successful to the degree that facts are used.

Information from Home. Many bits of pertinent information will usually be supplied by the parents to teachers and clinicians when the informants know that the facts are held in strict confidence. For a child who for one reason or another does not appear to be ready for initial instruction in reading, a systematic appraisal should be made of developmental history. Most parents keep baby books

Victoria Lyles

WRITING THEIR OWN BOOKS

York, Pa.

pertinent facts Ted had about pre-primer level reading ability; above normal general intelligence; and could not cope with the reading activities of a regimented fourth-grade class Ted was underage because he was admitted to school without protest at five years of age In fact, little or nothing was said to the parents until they were notified he was to be failed No conference with the parents was scheduled during the more than three-year period Ted had been in school Furthermore, the report cards had not provided alarming evidence, because the mother was a member of the board of education But murder will out The mother showed a very fine uncomplaining attitude toward the problem during the first interview, and thus emotional stability that the mother was verified by reports from the school staff. In short, a willingness to co-operate and to abide by the advice of the teacher characterized all of her contacts. After Ted had been given special help with his reading and had been adjusted to his own age group, the mother commented, "I caused Ted no end of trouble by sending him into first grade too soon What can I do to help other parents see the fallacy of pushing their children into school too soon?" Educators must answer this question for Ted's mother and all the other mothers seeking guidance.

Guidance, a Co-operative Matter

The key to this situation regarding parent guidance on school matters is the educator—the teacher, the school psychologist, the principal, the supervisor, and the administrator. Certainly no other community worker is prepared by society or paid by society to do this important job. The school should be looked

Vision, hearing, teeth, and the like should be checked at regular intervals; nutritional status, glandular balance, and similar items should be checked by a specialist if the family physician so recommends.

GROUP MEETINGS WITH PARENTS

Influence of Classroom on Parents. The wise classroom teacher will find occasions to invite parents to the school for room meetings. Meetings for mothers in the afternoon can be used to discuss the school program and, occasionally, to provide a situation in which the pupils learn "party manners" Occasional meetings should be held in the evenings so that both the fathers and mothers may come to see *their children's work on display* and to discuss the school program. Sometimes, just a dads' meeting will bring out all the fathers. Breathes there a father or mother with soul so dead that has not had a deep emotional experience upon seeing his child's work on display? These are the moments for the considered explanation of the nature and the goals of the school program.

The alert supervisor and administrator will plan to have meetings to which all the parents are invited. At these meetings teachers and parents can serve on panels and act as discussion leaders on major instructional problems. When parents see the goals of instruction and the use to which equipment is put, *it is not too difficult in most communities to interest parents in the purchase of visual aids, library books, and other needed equipment.* The chief purpose of these meetings should be not to purchase equipment but to improve education.

Home-School Relationships. In meetings and conferences with parents, the notion can be developed that differences exist among pupils. This can be done through analogy and by means of direct description. In athletic activities, boys differ in their times for dashes, in the distances they can broad jump, in their pole-vaulting and high-jumping records, and so on. The successful coach finds where each would-be athlete is in his achievement and then *coaches* him in techniques for improvement. This is not sugar-coating athletics and it is not postponing coaching until the prospective athlete has by some mysterious process arrived at a well-defined level of achievement

Likewise, it can be made clear to parents that reading ability is developed as a part of the sequences in language development The teacher learns where the child is in his experience with facts and in his language development and *coaches* the child in those things that will result in improvement The *reading-readiness* period is not used for the sugar-coating of reading instruction or for the postponement of it until the child has reached some indefinite goal. To put coaching, or teaching, on a systematic basis, the teacher of necessity becomes a student of language development. To deal with the vocabulary, sentences, and paragraphs in reading, the child must be prepared in terms of experiences with facts and literature, oral vocabulary, and sentence usage. When speech development is not adequate, the teacher begins there and not with the next step, reading. In general, the notions of parents provide a good index to the effectiveness of the school program.

After notions about readiness for reading instruction have been clearly described, the effect of home background will become clear. The stifling of reading interests and the frustration of personality are outcomes in some home situations where the implications of readiness are not understood. In order that Johnny may have a running start in the first grade, a parent may take upon herself to teach him to read. If there is not too much tension in the situation and if there is sufficient readiness, the parent may get by with it. On the other hand, there are too many instances of failure because, after all, years are required to develop a master teacher, doctor, or lawyer. While some state departments have been slow

or can recall certain stages of development Following this, information should be secured of types of experiences (such as travel, responsibilities for small purchases at the grocery store, etc.), play interests, sleeping and eating habits, reaction of siblings, parent reaction to the child, and so on If there are certain clearcut developmental deficiencies, then the parent can be led to their recognition because he is assisting in the identification of them Data which the interviewer has at hand can be woven into the discussion so that the parent comes to certain reasonable conclusions

Information from School Conferences are time-consuming. That is to be expected. As these conferences progress, the parents get together over the back yard fence to talk about that fine new teacher or principal they have. Confidence in the school grows in this way Ultimately, parents conclude that he who tries to dictate school guidance is something like the man who tries to be his own lawyer. In some communities, it has come to pass that parents who formerly attempted to dictate have learned to seek advice from the teacher and principal It is being done.

Principal Ira F King concludes a discussion of "Reading Readiness" with this comment on the parent problem (23, p. 217).

We have many parents of foreign birth or extraction who speak a foreign language in the home They do not understand our methods and some even go so far as to punish a child for not learning to read more quickly and fluently, when the child is not ready to meet the reading difficulties Many of these people can be convinced if we can have them for private interviews No doubt by persistent efforts on our part we shall in time convince these parents

During conferences with parents, the teacher has an opportunity to "get across" some of these points in which parents usually are interested:

1. Adequate social adjustment is developed best in those situations where "the apron strings are cut early." A normally adjusted child looks forward to his first school experiences and can be left at school on his first day "without a whimper." (This, of course, requires a well-adjusted mother who has some understanding of the basic principles of child guidance)

2. Readiness for reading is developed in the home through rich experiences that give depth and breadth to interests; normal conversations that deal with the child's experiences and responsibilities, broad experiences with poetry, stories, and verse, opportunities to engage in free play activities with contemporaries and the like. By and large, the actual teaching of reading should be left to the school.

3 Until evidence is secured to the contrary, the child should be permitted to use the preferred hand—right or left—for unimanual activities. It should be pointed out that some children put the left arm in the coat sleeve first, put on the left shoe first, and are really less awkward at the table if permitted to use the left hand There is no social disgrace in being left-handed and there is nothing sinister about being a sinistrad, or left-handed person. The teacher should be prepared to follow up on this suggestion in school Right-handed children tilt their paper toward the left, to avoid overhand writing, left-handed children should tilt the paper to the right.

4. Parents should be responsible for the physical welfare of their children. They should not wait for a note to be sent home from the school doctor or nurse requesting an examination and follow-up. Most school health examinations are "two-minute" snapshots at the best. Most parents are sold on the idea of having their children's teeth checked by the family dentist every six months This is important, but it is also important to check vision at least once each year. False teeth can be purchased to meet the individual's needs, but glass eyes are used largely for cosmetic effect

should be made clear that a story hour in the home is desirable and that the primary teacher or local librarian is always eager to provide lists of appropriate children's books and magazines. Educators can go a long way toward convincing parents that books and children's magazines are better investments for birthday and Christmas presents than an excessive number of cheap toys. Fourth, afternoon trips and longer trips should be planned with the child. During this planning of the route and the places to be visited, the child is prepared to get more out of the trip. This can be a pleasant and worth-while experience that contributes to readiness for reading. Fifth, family discussions of local, national, and even world events are not always entirely beyond the comprehension of five- and six-year-olds. Sixth, parents should be charged with the full responsibility for ascertaining their children's physical readiness for learning. Case studies can be very effective for emphasizing the role of vision, hearing, nutrition, and kindred health items in readiness for reading. Demonstrations of school health tests should make clear the inadequacy of Snellen chart tests of vision and watch-tick tests of hearing. While these tests are valuable for screening out certain factors, they do not tell the whole story of needs. These are a few of the desirable practices that will help orient parents to the problem.

In dealing with reading disability cases, the writer always tries to make both parent and child literate regarding the nature of the problem. All too often, evidence is secured of too early admission to school or of unfortunate experiences with regimented classroom instruction. The plaintive parental comment often is, "If someone could have warned me of the evils of pushing my child into first grade so soon, I might have prevented all this trouble! Why wasn't I told? Why aren't parents warned by school people?" The answer, dear teacher, rests with you.

HOME VISITATIONS

Invitations Resulting from Child Enthusiasm. With all the enthusiasm of a highly successful achiever, Mr. Bartlett and his son, Ralph, drove over to the principal's home at nine o'clock one Saturday evening. They had come to invite the principal to inspect their handiwork in building a workbench in the basement and to seek further advice on equipment. This may have been a late hour for Ralph but the project had started through the school contact and they thought it only natural that the principal would be interested in the results. This is one way that teachers make home visits by invitation.

Parent-teacher co-operation should be built on a two-way basis. Teachers expect parents to come to the school for needed conferences. This is justifiable. On the other hand, to get a better picture of the child the teacher needs to have first-hand information on home environment. This can be got, in part, through home visitations. Mary's lack of security in social situations may be caused by a domineering parent, while Reade's lack of self-confidence may be the result of continual depreciation of his ability by an older brother. What the teacher does for Mary or Reade in the classroom will be based upon an analysis of the causes. Modern education is based on an understanding of the whole child; hence the teacher should have some knowledge of his home environment.

It is far better for the teacher to establish desirable working relationships with the home before a serious problem arises than after "the horse is stolen." Parent loyalty to the teacher is based on confidence in the teacher's integrity, apparent professional competence, and sincere interest in her pupils. In short, most parents are interested in the teacher as a person and as a professional worker. Hence, at the beginning of the school year steps should be taken to contact the home.

to recognize this fact, nevertheless it is true. There are those exceptions who do learn to enjoy reading before admission to the first grade, but these children learn to read in spite of teachers and parents. Too often this is done at the expense of broader personality adjustments.

In order to prevent undesirable home instruction, steps should be taken to point out worth-while practices First, the development of desirable relationships in play activities with other chil-

dren should be noted. It is here that impetus is given to the development of personality and language ability Second, the ability to assume responsibilities has its beginnings in the home. Children should be expected to assume certain obligations about the care of the home and should be encouraged to deal with grocer and drug clerk As a part of these experiences, children should be taught how to dress themselves. All of these are most worth-while experiences. Third, it

Mary D Reed   SHARING FIRST-HAND EXPERIENCES   Terre Haute, Ind

teachers, and boys entertained false notions of education. Leonard was being taught to sell his heritage for a mess of pottage; Wesley was being taught frustrations through attempting to keep up with the Joneses. The one was being taught how to succeed without much effort; the other, how to fail with an all-out effort. In any event, the type of home report used was a symptom of teacher failure to evaluate her professional premises.

Parent-School Affiliation on Reports. At about the same time, several parents called on the school principal and teachers to inquire regarding their children's progress. Some children had been given B and C grades the preceding year, now they were receiving A grades. Others who had been given A grades the previous year had dropped to C grades. An analysis of the problem disclosed "grading according to the normal probability curve" as the basis for the inquiry. Up to this point the class had been divided into two classes on the basis of ability. Each class had been graded so that a given number had received A's, B's, C's, and so on. When the two classes had been combined into one group, this procedure placed the high achievers of the class with lesser abilities at about the average of the combined classes. After the problem had been clearly stated with the help of all concerned, one parent asked, "Then isn't an A always an A?" Grades, or school marks, of this kind lead many parents to believe in the absolute characteristics of a home report. In this instance the group of parents *suggested that they should be given home* reports that had *meaning!*

The problem of home reports was settled for the time by committee action. Parents, teachers, and pupils developed a type of home report that provided an appraisal in understandable language of all-round pupil growth. And it wasn't the old-time figures- or letters-type of report card that had little meaning for them. An informal report issued on a

nine-weeks' basis was acceptable to the teachers because it reduced their clerical work and was more nearly consistent with their ideas of guidance. This report provided specific information on social adjustment, character traits, effort progress in language, music, art, and so on. For example, under the heading of "Reading," the teacher's comment on Tommy was, "Word-recognition ability is developing slowly. Interest is growing daily. Has completed the primer he was reading." Another committee in a different situation would have developed *another means of home reporting.* In fact, a group in an adjoining school district voted to have no report cards and to depend upon parent-teacher conferences.

In his *Autobiography,* A. A. Milne issues this challenge to educators (24, p. 60):

> So if at this time I was still an enthusiast, it was because I was still at my father's school, and he was an enthusiast. And if I disliked French, and thought mathematics grand, it was because he, who could teach, taught me *mathematics, and did not teach me French.* As I said once to a Headmaster, a school report cuts both ways; it is a report on the *teacher as well as on the taught.* "Seems completely uninterested in this subject" may mean no more than that the master is completely uninteresting. In Papa's house it was natural to be interested, it was easy to be clever.

Home reports do "cut both ways," *but mostly in the direction of the teacher.* In regimented schools where subject-matter only is given consideration *and even that is not really taught because of* a failure to study pupil readiness, the old 90% type or A-, B-, C-, D- and F-type of report card fits the situation. In *a modern school characterized by teacher guidance and purposeful learning situations,* the grading-in-terms-of-class-average type of report just doesn't fit. For example, a first-grade teacher may have *one reading-readiness group and several* groups of children reading at different

Visitations Resulting from Teacher Enthusiasm. Teacher personality and interests always have a lot to do with points of contact or rapport with the parents Miss Nagle—hale, hearty, and well-met —just naturally will know all the parents in her district. Her contacts with parents are strengthened through church work, Girl Scout or Brownie activities, and the like Scholarly and dignified Miss Oak is frequently called upon for book reviews before clubs and for P T A. talks Vigorous, driving Mr Gregory is popular with the fathers through the Lions Club Cubbing and Scouting activities take him into most of the homes. All of these teachers have interests outside the four walls of their classroom that make them welcome community workers and better teachers. They are the pedagogical priests of the community.

In some school systems the administrations have gone to the extreme of requiring teachers to visit each home during the school year This dictatorial order probably does as much harm as good Teachers, doctors, lawyers, and other professional workers cannot be legislated into accepting their responsibilities. Unless a teacher is sensitive to the full social implications of her task, she is not likely to be a good representative of the school in the home Furthermore, home visits should be made when there is a need and when they are brought about in the natural course of community activities Invitations by parents or children rather than school board legislation should be the occasion for a home visit.

Home Reports

The Easy Way Leading to Unfairness One afternoon Wesley treaded his weary way to school several minutes late. His tear-stained face and forlorn appearance gave ample evidence of a defeat so great that he couldn't talk about it. Report cards had been sent home that noon to be "signed by the parents " In spite of the fact that Wesley had made an almost superhuman effort, he had received only D's and F's. The school records showed that he had worked up to and beyond other children of similar mental capacity, but *he had failed* He had failed in his own eyes, in his classmates' estimate, and in what his mother had expected. Wesley had failed to measure up to the average of his contemporaries The noon hour had been spent in avoiding the kicks and the pummeling of a distraught parent. And now, sore from his beating, he held his tear-stained face low in shame and bewilderment as he tried to answer politely the questions of his friendly principal This is the price that this Wesley and other Wesleys pay for regimented education, a type of "education" made real by teachers with a distorted sense of social values.

That same afternoon Leonard rode to school early on a shiny new bicycle He, too, had taken his card home "to be signed " The long row of A's brought a glow of pride to the hearts of his parents Now they had to keep a promise, the new bicycle Leonard hurriedly ate his lunch and raced to the hardware store to take his choice from a long row of bicycles on the floor. Had he not earned all A's? In fact, Leonard and his teacher admitted that he had "lounged" through his work without effort and with very poor work habits. Grades, however, were not awarded for study habits, co-operation, thoroughness, and the like because the school authorities believed in the "mastery of subject-matter prescribed " All students were graded on the normal curve of achievement, regardless of capacity or effort.

Leonard and Wesley were members of the writer's Cub Pack These instances are vivid remembrances because these boys were loyal friends of the writer. Since that time, similar report card outcomes have been observed in other communities where regimented instruction prevails Both Leonard and Wesley are representatives of tragedies. Parents,

STUDYING PROBLEMS TOGETHER

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"levels." How can a report card based on notions of regimentation fit that type of situation?

This observation regarding grades was made by Miss Eleanor Rayne (26, p 388):

> Teachers usually justify the sending of reports because the parents need to be informed concerning the type of work that Sammy is doing Few concede that grades are given for the purpose of urging the home to take corrective measures for the child's attendance, conduct, or progress School people seldom admit that reports are a part of a highly competitive system which urges the pupil to do better than others in the group Yet when the report to parents is analyzed, it is found that these reasons are the very bases of its issuance Further thinking will disclose that the shifting of responsibility for the type of work done by the pupil in school to the parent in the home is a symptom of weakness which permeates the entire school set-up Probably one great good that the report should do would be to promote cooperative efforts for the student's good

Home reports—whether oral or written, formal or informal—should further home and school co-operative efforts in the common problem of child guidance In spite of many statements to the contrary, schools in the long run have adjusted programs to the times. Teachers have found summer-session attendance at colleges and universities plus in-service study necessary to keep up with modern trends and research findings on the developmental needs of children Positive and constructive discussions of home reports by executive committees of parents and teachers can go a long way toward making use of understandings of readiness at all school levels. Alert and progressive teachers are modernizing their notions about education by looking at those facts within and outside the classroom that have to do with child development Superstitions, prejudices, fairy tales about learning, and false notions are slowly giving way to scientific findings on the problem. Well-prepared

father who was supposed to apply the necessary homework measures. When the father found that Arthur "could not pronounce even the simplest word," he immediately applied the only thing he knew; namely, phonetics. Very shortly, Arthur saw that this homework was not helping him to learn to read and father-son antagonism began to mount. Under the guidance of a professionally prepared teacher, Arthur made giant strides in his control over the reading process. Arthur's case is just another sample of what happens when teachers shift their guidance responsibilities to the home.

Educational guidance is a professional job. Any alert educator can unearth more failures than successes in school situations where teachers have attempted to shift their responsibilities to the home in the name of homework. All too often homework destroys parent-child rapport, builds up emotional blocks within the "learner" and results in irrelevant and often harmful learnings. Furthermore, the young child's school day is lengthened from eight o'clock in the morning to eight o'clock in the evening. Then, too, some children carry these emotional disturbances through the day time in fingernail biting and tics and through the night in nightmares and bed wetting. There is no adequate social escape for the child. Until data can be offered to the contrary, homework for elementary-school pupils should be abolished completely.

Jerry's mother was a school teacher. Because Jerry was having unusual difficulty with reading, the mother projected the cause of the difficulty on the school and especially on the teacher. Since neither the mother nor the nine-year-old son possessed the necessary skill for analyzing the problem, this left Jerry "out on a limb." This otherwise normal type of projection response did not solve the problem, instead, difficulties were multiplied. Through chance remarks and facial expressions, the mother stripped Jerry of his loyalty and security in the school with the result that he had no place to turn for help. Before any fundamental change could be made in the reading situation, it was necessary to apply remedial procedures to the parent's attitude. With this accomplished, Jerry was reconditioned to the school situation and appropriate reading techniques proved to be effective.

Even the erring parent wants his child to have those things which he did not enjoy. Ordinarily the building up or breaking down of a child's loyalty for the school is done quite unconsciously. When this problem is called to the attention of parents in the right way, most of them respond. Better still, the teacher should build loyalty by respecting the contributions and the uniqueness of each pupil, by directing class activities so that classmates are solving common problems rather than courting teacher favor in recite-to-teacher situations, and by taking the necessary steps to insure home co-operation based on mutual understandings. Faith in intelligent leadership and in fellow workers and charity toward the mistakes of others are worthy goals of instruction in the larger sense.

help given by the mother was a scolding along with "sage" advice, "You can get it right, read it" Each evening session was characterized by a mother's scolding and a child's crying Each day in school Doris was put in an additional frustrating situation by a teacher who insisted on her "reading a third-grade reader with the rest of the class." This emotional situation contributed to a full-fledged reading disability that required both teacher and parent guidance to overcome. Doris is only one of the victims of this homework plague that makes school life a living hell

Ned, an average boy, was having trouble with some of his schoolwork. His father was a very successful business man, but untrained in pedagogy. The father's idea was that "Ned could get it if he wanted to!" This appears to be a normal parent reaction to an unanalyzed learning difficulty. In order to be consistent with his analysis of Ned's difficulty, the father proceeded each evening to teach

reading through a hairbrush. The hairbrush was applied with Ned in an uncomfortable position over his father's knee. One does not have to be an expert child psychologist to predict the outcome of motivating the child to do his homework by this type of paddling technique. When the child was called to the writer's attention, Ned not only had his learning disability but he also had developed a strong emotional antagonism for the father, the teacher, and his schoolwork This type of homework multiplies rather than reduces the child's learning hazards

Arthur's father was a ne'er-do-well school teacher. He had floated from the teaching of Greek, Latin, and other languages to the teaching of social studies Being a very intelligent man, he had mastered phonetics. In his early school years, Arthur had transferred once or twice each year from one school to another with his roving father. Each teacher had spotted Arthur's growing reading disability but helplessly reported it to the

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ferentiation in terms of readiness and needs, purposeful learning, meaningful experience, and the like represents a way of life The life in any school community is the result of certain understandings by those living in that community and of evaluations by the leaders in that community Parents and teachers have the kind of schools they want. Belief in regimentation, in academic prescriptions, in a certain percentage of failures each year, in complete educator dictation to parents and children, and the like produces one kind of school system On the other hand, respect for the uniqueness of the learner, understandings of the basic principles of child guidance, the provision of a program of differentiated guidance, planned co-operation between parents and teachers, and so on contribute to the pointing of the school life in another

direction. Today schools are being evolved in the latter direction.

The problem resolves itself not to one of securing parent co-operation but of making it possible for both parents and teachers to work together for the betterment of the broad educational program for the child. No one can dispute the statement that parents believe in schools. Our whole way of American life is based on education Education, however, is more than schooling The child's curriculum involves all his experiences that make him what he is. The home has nurtured the child for five or six years before he comes to school. Even after entering school, the child spends a substantial proportion of his time under the guidance of the parents From this point of view, the home and the school must work together in the interests of the child.

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The newer educational psychologies and philosophies
are calling for a more functional type of reading instruction
than we have had in the past—a type of instruction which
flows out of or into children's interests, activities, and enter-
prises   Nila Banton Smith (42, p 442)

Preview

Varying Approaches. Approaches to ini-
tial reading instruction vary all the way
from an outright basal-reader approach
to an all-out experience, or interest, ap-
proach. In between these two extremes,
there are a variety of practices combining
the two approaches. The trend is in the
direction of the experience approach.

The experienced teacher has learned
that readiness for systematic instruction is
not calendar-dictated. A very few pupils
have picked up some reading skill before
admission to the first grade; the re-
mainder vary widely in those achieve-
ments that contribute to readiness for
initial reading instruction. In fact, a few
children literally may not be ready for
systematic instruction in reading before
they enter the third grade. Hence, the
problems involved in beginning reading
instruction are of concern to *all* primary
teachers.

Variations Among Children. The inex-
perienced teacher should not become
frustrated because she cannot identify
techniques for teaching all children to
read upon admission to the first grade.
Children differ in their achievements of
general prerequisites for initial reading
instruction. There are wide variations
among six- and seven-year-olds in re-

gard to language readiness for reading.
The children vary widely in personality
development; some adjust readily to
group learning situations, while others
are shy, retiring, fearful, boastful, or
overaggressive. There are beginners who
have clear-cut right- or left-hand prefer-
ences and those who are confused in this
respect. Then, too, there are pupils who
will learn readily by means of a basal
reader, experience, or combined ap-
proach. On the other hand, research has
identified those pupils who have a short
memory span for language learnings and
a special deficiency in associating printed
symbols with the things they represent.
These pupils must be taught by special
methods. All these and other differences
make mandatory a program differen-
tiated in terms of the developmental dif-
ferences among pupils in a first-grade
class. Reading-readiness and other
equally important activities should be
continued with each group in the class-
room until the pupils evidence an in-
terest in satisfying their needs through
reading and the necessary mental quali-
fications such as retention of reading
vocabulary.

In their discussion of the prevention of
reading difficulties, Witty and Kopel
made these pertinent comments (50,
p. 195):

tations of experience records for initial reading instruction?

XII. How is the transition made from experience records to "book" reading?

A. When are the children ready for their first book?

B. What approaches may be made to initial "book" reading?

C. How are the children introduced to a first preprimer?

D. How are the children introduced to a primer when it is used as a first book?

E. How are the children introduced to the first book when an experience approach is used?

F. What criteria may be used for selecting the first book?

XIII. On what basis should a child be promoted?

GOALS OF INITIAL READING INSTRUCTION

The experience approach to initial reading instruction permits a skilled teacher to develop attitudes toward reading which are somewhat difficult to achieve with some basal-reader programs. Initial reading experiences should be directed toward these goals.

I. To develop an interest in satisfying personal needs through
  A. Purposeful reading
  B. Silent reading for enjoyment and understanding
  C. Oral reading to entertain or to inform others
  D. Curiosity about books

II. To continue the development of oral language facility
  A. Oral vocabulary
  B. Current usage
  C. Naturalness and spontaneity
  D. Fluency and coherence

III. To develop the basic notion that words stand for, or represent, experience

IV. To refine and extend basic concepts through
  A. Opportunities for enriching experiences, ranging from direct to vicarious
  B. Opportunities for organizing experiences by means of language

V. To develop basic reading skills and abilities, including a sight vocabulary
  A. Left-to-right progression
  B. Accurate return sweeps
  C. Visual and auditory discrimination
  D. Visual perception by using
    1. context, or experience, clues
    2. configuration clues
    3. picture clues
    4. distinguishing details
  E. Habit of silent reading before oral
  F. Silent reading free from tensions and vocalization
  G. Rhythmical oral reading in a conversational tone
  H. Knowledge of place and purpose of a title
  I. Sentence sense; i.e., recognition and use of good sentence structure
  J. Composition unity, including a feeling for sentence, or idea, sequence
  K. Knowledge of when to use reading as a learning aid

VI. To promote social and emotional adjustment
  A. The ability to work co-operatively and courteously in small-group and class situations
  B. Independent work habits
  C. Self-direction and persistence
  D. Effective habits of concentration
  E. Feeling of belongingness
  F. Willingness to share experiences and to listen

VII. To develop facility in the use of and desirable attitudes toward books
  A. To handle books
  B. To hold books
  C. To use page numbers

Prerequisites for Reading. Initial control over the reading process is only one of many adjustments required by six-, seven-, and eight-year-olds. Until more evidence is obtained on the needs of these children which must be satisfied through reading, it will be prudent to place other objectives ahead of reading. After all, reading is only one process by which the child deals with his environment. General personality development should head the

Children forced to read before they are ready develop faulty perceptual habits and unfortunate attitudes So varied are children's rates of development that the introduction of reading is delayed in the modern school until a careful appraisal of each child's physical growth, mental ability, and emotional development discloses his readiness for successful experiences in silent reading The first activities are carefully planned, and their specific nature is determined by the first-hand experiences of each group deemed ready to read

Bases for Present Discussion

This chapter has been organized around the following sequence of questions

I What are the goals of initial reading instruction?

II. What are some of the advantages and limitations of important methods for teaching beginners, as developed in the past?

A. What use is made now of the word, sentence, and story methods?

B. Why were phonetic systems developed?

C. What type of phonic, or word analysis, procedure is used in modern reading instruction?

III. What place does a non-oral method have in the teaching of beginning reading?

IV. How may tactile and kinaesthetic associations strengthen the retention of word learnings?

V. What approaches are made to initial reading instruction?

A When basal readers are used, what procedures are used to develop readiness and initial reading skills?

B How can the experience, or interest, approach be used to develop readiness and initial reading skills?

C. How can the experience approach be combined with the use of basal readers?

D. What are the advantages of the experience approach to initial reading instruction?

VI How can individual needs be met in group situations?

A. Why should groupings be flexible?

B On what basis should pupils be grouped in a first-grade classroom?

C. How many groups should be organized in a first-grade classroom?

D Why should primary-grade classes be kept relatively small?

VII How are experience records used to develop language facility? How are they used to develop initial reading skills?

VIII How are experience records organized?

IX How does the teacher proceed with the co-operative development of experience records?

A How are the pupils oriented, or prepared, for the recording of an experience?

B How is pupil effort enlisted?

C How are the pupils guided in making a decision regarding the general type of composition to be employed?

D. What procedure is used to develop the preliminary draft of a record?

E How are the pupils guided in editing and revising an experience record?

F What use is made of illustrations for experience records?

G How is the record put into final form for use?

X How are experience records used in the classroom?

A. What purposes do experience records serve?

B. How is the rereading of experience records motivated?

C. What specific outcomes may be expected from the use of experience records?

D. What use is made of individual compositions?

E What specific procedures are employed to develop initial reading skills and abilities for basal reading?

F How may group-dictated compositions be displayed?

G. What pitfalls are to be avoided in the use of experience records?

XI. What are the chief values and limi-

child was required to learn the alphabet first. The second step was the learning of syllables and words by a spelling method. Next steps proceeded from syllables and words to sentences and to stories. Huey commented (18, p. 266): "Just how naming the letters was supposed to assist in pronouncing the word, it is difficult to see."

This method and the reason for its use have been ably summarized by Dr. Nila Banton Smith (42, p. 34):

> The techniques used were those of learning the alphabet, spelling syllables and words, memorizing sections of content, and reading orally. All children were inducted into the reading process through the alphabetical method because that was the only reading approach known at that time

An interesting use of the a-b-c method was made during the sixteenth century. At this time, gingerbread was a highly prized dainty. Someone conceived the idea of making the hornbook of gingerbread and of motivating the child by permitting him to eat each letter he had learned. "Proceeding thus with vast delight he spells and gnaws from left to right" (42). A school baker was employed to prepare the instructional materials! A gingerbread diet for about three weeks was deemed sufficient for memorizing the alphabet. This approach—enthusiastically endorsed by Basedow, a German educator of the eighteenth century—became known in the history of reading instruction as "the gingerbread method."

One of the first pieces of instructional material mentioned in the records of American reading instruction is the hornbook. (A reproduction of one type of horn-book may be purchased from The Horn Book, Inc., 248 Boylston Street, Boston, Massachusetts) So far as is known, these horn-books were constructed in England, and were used there as early as 1450 The page of material consisted of the a-b-c's, syllabarium (or syllabary of vowel and consonant com-

binations such as ab, eb, ib, ub, ac, ec, etc.), and prayers Briefly, the horn-book was a card of printed material tacked to a paddle and protected by a horn cover.

THE WORD METHOD

Horace Mann is credited with having brought about the abandonment of the a-b-c method and the introduction of the word method. Through his visits to Prussia, Horace Mann learned that the a-b-c method was not only under attack but that a phonetic and word method was being advocated These protagonists of the word method assumed that the word was the unit of recognition; therefore, words should be taught before the letters. As pointed out by Stone (47, p 174), the alphabet method persisted until phonic methods were developed because the child was given little help with word recognition Storm and Smith (48, p. 7) state that the word method had been adopted in most progressive schools by 1880.

The word method had its beginning in 1657 with the publication of Comenius' *Orbis Pictus*. In his primer of 1828, Worcester made it possible for the child to "learn first to read words by seeing them, hearing them pronounced, and having their meaning illustrated; and afterward . . learn to analyze them or name the letters of which they are composed." About 1840, Bumstead authored a series of readers based on the sound idea that a child not be required to learn to spell a word before he can read it. However, extensive use of the word method awaited the development of a phonic system.

PHONETIC METHODS

In order to promote the development of word-recognition skills, many phonetic, or sounding, systems of teaching beginning reading have been devised. As early as 1854, Ickelsomer, a German, advocated the use of sounds in place of the names of letters. As pointed out by the adherents to these systems, the

LEARNING ABOUT NATURE

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list of broadened objectives of education

To contribute to personality development, initial reading activities should grow out of and contribute to everyday living in and out of the classroom The goals of initial reading instruction may be summarized this way First, the unfolding of interests which foster reading activities. Second, the development of insight for knowing when to use reading as a learning aid. Third, the development of the necessary skills and abilities for locating information Fourth, the development of the necessary skills, abilities, attitudes, and information for selecting and evaluating information pertinent to a given problem. Fifth, the development of the ability to organize information so that it can be applied to a given problem Activities intelligently directed toward these five goals contribute to comprehension and retention, and materially lessen the danger of future reading difficulties. Teachers need to give constant heed to these goals

In Retrospect

Modern reading instruction is based on a combination of methods: *alphabet, word, phrase, sentence, story,* and *phonic*. An evaluation of methods in use today is enhanced by a review of their development Students can profit from a careful reading of Dr Nila Banton Smith's scholarly and interestingly written *American Reading Instruction,* published by Silver, Burdett and Company, 1934. A brief sketch of the rise and fall of interest in certain methods is presented herewith.

THE ALPHABET METHOD

This method—often called the a-b-c spelling method—was one of the first for teaching children to read and write This method of learning to read was used generally by the Greeks and Romans. It was used as a means of teaching beginning reading until relatively recently.

The a-b-c method was a highly mechanical one. Since the letter was assumed to be the unit of recognition, the

the sentence method but also of the story method. These latter methods were developed concurrently with phonic systems and were emphasized during the 1910's. Essentially, the story method consisted of memorizing a story or rhyme, analyzing the story into sentences, phrases, and words, and applying phonetics for the sounding of words.

Recent Methods

Beginning with the 1920's, silent reading was emphasized, more attention was given to the integration of reading with the various school activities, and phonics continued to hold attention. Unfortunately, many teachers labored under the mistaken notion that phonics instruction was taboo. Even in the most recent manuals for readers, the value of phonics is recognized. Favorable recognition has been given to Dr. Arthur I. Gates' "intrinsic method." Briefly, this method emphasizes the development of word-recognition skills in comprehension exercises. The child is taught to use both context and word-form clues, thus emphasizing meaning.

In 1886, Dr. G. Stanley Hall began his discussion of *How to Teach Reading, and What to Read in School* with this statement (16, p. 1):

> To begin with the first of these problems, there are two methods of teaching the art of reading: viz., the synthetic, which proceeds from letters or sounds to words, sentences, etc.; and the analytic, which begins with pictures, words, or sentences, and descends to visual or vocal elements.

As pointed out in the preceding discussion, synthetic methods have been discarded in favor of analytic methods. More recently, analytic methods have been used with a better perspective of the reading process by less emphasis on the mechanics of reading and more emphasis on meaning and the broader objectives of education.

NON-ORAL METHOD

Silent Reading Approach. Recently considerable attention has been given to the non-oral method of teaching beginning reading advocated by James E. McDade. This is a *silent* reading approach to beginning reading; no oral reading is done "in grades one and two" (27, p. 14). McDade states that his non-oral method is based on two cardinal rules (27, p. 15): First, "there must *always* be an association of the printed word with its meaning." Second, "there must *never* be an association of the printed word with the oral word." Because "oral reading is really translating one language into another," McDade recommends that teacher and children communicate by "print and reading."

McDade emphasizes the silent reading approach. He says there should be no oral reading in school during the first two years and no oral reading at home. In short, no oral reading! Selections, such as poetry, requiring oral reading for appreciation are not used in the first two grades; however, poetry "should be given freely in purely oral work." He concludes that "oral reading should not be begun until the non-oral skill is thoroughly established."

Description of Method. The following is a brief sketch of McDade's non-oral method. First, pupils are prepared for a reading lesson by "oral work in advance." For example, if the direction, "Point to the clock" is to be met on non-oral-reading printed cards, the children previously practice these directions orally. Second, a "situation method" is used to bring "meaning into a child's mind." For example, a number of objects are placed on a table and the child is given a card with the word *book* printed on it. (Manuscript writing is recommended because it is so nearly like print.) If he does not know which object to put the word on, he silently consults a picture dictionary of samples. He compares the word on the card with the words of the

twenty-six letters represent some forty-four sounds This method even received support from Pestalozzi. It dislodged the a-b-c method, which had secured a firm footing in American reading instruction.

Various techniques were used in the sounding systems devised. In one system, the various sounds were designated by modifications of letter forms. For example, silent letters were printed with hair lines, and the technique produced what was called "pronouncing print." In other methods, the words were printed with diacritical markings to indicate pronunciation. The chief limitation of these methods, of course, was the emphasis on the mechanics of reading. During the second and third decades of the twentieth century, several series of readers built on systems of phonics flourished. According to Dr Nila Banton Smith, the impetus was provided by Miss Pollard's Synthetic Method published in 1889. The Ward Rational Method, consisting of a primer and six readers published in 1894, was an attempt "to reconcile the word method and the phonetic method by using the word method in connection with the early pages of his primer" (42, p. 134). In 1907, the Aldine Method, devised by Spaulding and Bryce, was published This method employed a series of rhymes to develop a sight vocabulary and emphasized the final blend A formally systematized phonetic method—published in 1912—was first prepared by James H. Fasset of Nashua, New Hampshire. This initial blend method in the Beacon readers gave "careful attention to the blending of consonants and *following vowel*."

Early systems of phonics emphasized the blending of word elements This synthesizing of sounds into words has been replaced by analysis of words In word-analysis activities of today, the whole-word method is advocated quite generally, with the emphasis on *analysis* rather than on *synthesis*

SENTENCE METHOD

While advocated much earlier, the sentence method came into general use between 1870 and 1890, largely through Farnham in the Binghamton, New York, Public Schools. Farnham pointed out that the sentence rather than the word is the unit of thought, hence it is the natural unit of reading.

In Huey's description of one use made of the sentence method, teachers will note elements in common with the experience approach (18, pp. 273–274):

In using the sentence method, the teacher has come to make much use of the blackboard. A sketch of some object or scene interesting to the child suggests to the child a thought which he expresses in a sentence. The teacher writes this sentence and it is read, naturally with expression since the child's own thought here leads the expression Other sentences are suggested, written, and read, until perhaps a little story of the picture is finished, all of which the child can soon "read" with natural expression Sometimes the child's experiences on an excursion or at play or at work are thus written up as he tells them and made into a story which he soon can "read," although not at first knowing the place of a single word But the frequent recurrence of certain word-forms, and sometimes substitutions, such as "I have a dog," "I have a knife," etc., bring these particular word-forms to his attention, and the sentence-wholes are gradually analyzed into their constituent words and these again, in time, into their constituent sounds and letters The important thing is to begin with meaningwholes and sentence-wholes, make thought lead, and thus secure natural expression, letting analysis follow in its own time. The method goes famously at first, like the word method, and naturally gives more "legato" reading than does the latter, but it breaks down when the child attempts to read new matter for himself, so the teachers commonly say. Hence the sentence method, too, is usually combined with or supplemented by phonics.

STORY METHOD

The expansion of the word method led not only to the development of

in the situation under his supervision. Fourth, the means of developing independence in word recognition has not been made entirely clear. Like other methods, McDade's non-oral method is not without its limitations.

CLINICAL PROCEDURES

Since 1920 there has been an increasing interest in reading clinics. These clinics have been established in public schools, teachers' colleges, and universities for the dual purpose of teacher education and the intensive study of the problems presented by children with reading or general language disabilities. While analysis procedures still leave much to be desired, they have been developed to the point where the difficulties can be measured and "typed," or arranged so that they can be used to indicate the procedure which must be employed to teach the child. Special procedures—called remedial and corrective procedures—have been devised to give these children control over the reading process. For example, in the Pennsylvania State College Reading Clinic, children are admitted to the Reading Analysis Division for a study of their problems. After the type of case has been identified, the pupils often are admitted to the Reading Clinic Laboratory School, where their case "typings" are verified and they are started on their way to success. Many of these clinical procedures may be applied in the classroom by teachers who have the required professional preparation to use them successfully. Use of clinical procedures by teachers lacking in necessary professional preparation is to be avoided, owing to the nature of the work. All teachers will profit by the study.

FERNALD-KELLER APPROACH

One of the most substantial contributions to clinical procedures is the Fernald-Keller approach (14). For more than twenty-five years, this approach has been used successfully by an increasing number of clinical psychologists and teachers. A brief description of this procedure is given here with the understanding that *it will not be used for all pupils*. Furthermore, the teacher should take steps to obtain sufficient professional preparation for understanding the principles basic to the procedure. This may be done by reading Dr Grace M. Fernald's *Remedial Techniques in Basic School Subjects*, published by McGraw-Hill Book Company, Inc, 1943. In addition, the teacher should enroll in a laboratory course to insure correct use of the technique.

Fundamentally, the Fernald-Keller approach is a variation of the experience, or interest, approach in which visual, auditory, tactile, and kinaesthetic modes of learning are emphasized. Regardless of the labels used to describe the technique, it works with children of normal and superior intelligence who have a short memory span for verbal material and who have difficulty in associative learning of the visual type.

The Procedure. The following is an outline of the procedure described by Dr. Fernald in her recent book (14). Dr. Fernald varies the procedure as the child progresses with his reading activities. Progress is described in stages.

Stage 1. Tracing.

A. The child is motivated in two ways. First, he is told that he may try a new method of learning words that works. Second, he is encouraged to learn "any words he wishes to use but does not know how to write" (14, p. 33).

B. The teacher writes the word with a chalk or a crayon on a large card or piece of paper (approximately three inches by ten inches) while the child observes the process. Either manuscript or cursive writing is used, but manuscript is preferred because it more nearly approximates the printed word in a book.

C. The child traces the word with his finger until he can reproduce it correctly *without looking at the copy*.

1. The child traces with his first and second

dictionary until he puts it over the right word and, therefore, gets the meaning. The teacher never tells the child what word is on the card. All of the activities are carried out silently. This labeling procedure is varied to maintain interest by such devices as action cards. Third, sentences are introduced "as soon as a few verbs, nouns, and adjectives are known." Fourth, "seat work of the individual (self-administering) type carries more than half the load." This type of activity is "used from the very first day." Fifth, in order to make use of "additional opportunities for functional reading," McDade urges the teacher to "give room directions in print."

Materials Recommended. Initial reading materials recommended by McDade include (1) objects, persons, models, or pictures, (2) "something to be read—a word, phrase, or sentence" and, (3) a dictionary. The printed word is always shown in relationship to a situation, never in association with spoken words. If a child cannot select the right word, he consults a "dictionary of samples." This dictionary may be of the pictured dictionary type, labels on objects, or a chart of words and objects. By matching the word or words on the card with the dictionary of samples, the child is required to make the necessary visual discrimination to identify the meaning of the word. After considerable vocabulary is developed, the words are arranged alphabetically in a teacher- or pupil-made dictionary.

While McDade does not believe a basal reader is necessary, he has worked out a plan for its use. Basic vocabulary is developed by means of informal initial reading activities, described above. After the children are prepared for the vocabulary of the first basal reader, they are assigned lessons in the reader and comprehension may be checked by silent-reading exercises or by oral discussions (with the book closed). Seat work requiring silent reading is based on the lesson.

Results. As a result of his work, McDade concluded (27, p. 5) "that the children show much greater interest and independence, come to have a greater love for reading, read more rapidly, comprehend better, show greater ability in writing, require no remedial work, and in the end acquire extreme fluency and ease in the art of oral reading."

Justification of Method. McDade's non-oral approach to beginning reading instruction has some justification. In the first place, the relationship between visual symbols and the things they represent is emphasized. Getting this point across is one of the first jobs in initial reading instruction. Second, oral language control—and incidentally meaning—is developed before the silent reading. Third, silent reading before oral reading is emphasized, although in a quite different manner from that generally accepted.

Limitations of Method. McDade's proposal has been challenged on three bases: his basic assumptions, the experimental evidence, and practice. While the challengers sometimes have made questionable statements, they have called attention to the need for a considered appraisal of the non-oral plan before adopting it in wholesale fashion. First, McDade assumes that those who do not use his non-oral method must employ perforce an "oral-before-silent" reading approach. This, of course, is not a fact because silent reading before oral reading is a generally accepted principle of reading instruction. Second, more experimental evidence should be obtained regarding the immediate and long-term values achieved by the non-oral approach as compared to other carefully described approaches. And, so far as this point is concerned, more evidence should be obtained on the value of other approaches to beginning reading instruction. Third, if the "hints" given by the author are to be followed literally, this approach would deteriorate into a highly mechanical and uninteresting one. Undoubtedly, McDade did not permit this to happen

...ode of learning eliminated in
...f tracing.

...m Print (Initial book

...eached when the
...er looking at the
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...word for him;
...r the child,
...printed word and

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...t the teacher writes
...uld The child then
...identifies it in print.
...child begins to read

...always done first.
...ent reading, unknown
...ed and the child is told

...nt reading is completed,
...ls are learned by first look-
...ted word and then writing
...ng at it.
...e and delayed recall of the
...orased by flash cards or some

Recognition of Words Without
...ook reading and use of visual
...chniques)

...stage has been reached when it is
...er necessary for the child to write a
...n order to remember it. "As he looks
...s word, the simultaneous association
...milarity with words he already knows,
...ther with the meanings inferred from
...context, gives him an instant percep-
...on of the word" (14, p. 52).
b. Phrasing is improved by developing the
habit of silent reading "to clear up the mean-
ing of the few new words."
C. During this fourth stage progress is rapid.
D. With this procedure, children always do
their own reading; no one ever reads to
them.
E. Word recognition is developed by a syl-
... . Writing the word with-
...copy is used when necessary.

In Summary. The Fernald-Keller tech-
...que is one means of helping children

who have certain types of difficulties.
This approach is not recommended for
all children by the writer. Variations of
this technique are described in this
book in the chapter on Word Recogni-
tion. The purpose of this discussion is
to call attention to *one* way of teaching
children to read.

In Stage I the child traces the word.
Stage II has been reached when the
child writes the word *after* looking at a
copy prepared by the teacher. In Stage
III the child looks at the printed word
and writes it. During Stage IV, very
little writing of the "new" words is
necessary.

Important points to be remembered
include: First, *very few* children require
this type of guidance. Second, words are
never spelled orally. Third, words are
always written as a *whole*, never in sepa-
rated syllables. Fourth, the child *never*
copies the word; it is always written from
memory. Fifth, the correct form of the
word is emphasized; the incorrect form
(i.e., an error) is always erased or covered
up.

Alternate Plans

In general, three different types of
plans for initiating the young child into
reading have been used with varying de-
grees of success by competent teachers.
Classroom practices, of course, vary all
the way from one extreme to another.
They should do so; each teacher should
determine the approach she can handle
best in her total teaching situation. The
following is a very brief description of
three alternate plans.

PLAN ONE: BASAL READER APPROACH

1. Reading-readiness book is used to
screen out pupils not ready for reading
and to serve as a basis for a developmental
reading-readiness program.

2. Preprimers and accompanying work-
books are used for initial reading instruc-
tion.

fingers Tracing with chalk, crayon, pencil, or stylus does not produce desired results As he traces, he says the word by parts

2 The child says the word by syllables in a natural tone as he writes each part This writing is first done on scrap paper before putting it in a story or record

3 The word is written without looking at the copy If an error is made, the whole word is traced again and again until it can be written without looking at the copy. Attention is directed to the correct form, not to errors

4. The *whole* word is written without looking at the copy. The word is always written as a unit.

D. The word is always in context. During the first few periods, the word may not be used in a story The purpose of the initial activities is to convince the child that he can learn words and that he can remember them. However, the word must have meaning to the child, it must be one which he is interested in learning After the first period or so, the child learns words by this method which he wishes to use in a story or some type of experience record He may ask for words to label diagrams, to label pictures in booklets, or for stories

E. After the child completes a story or record, the teacher types it immediately so that it can be read in print.

F. After the labeling of the story is completed, the child files the words learned in alphabetical order

G. Frequent checks on retention are made. Rereading labels and stories and flash-card checks are used as a means of assuring retention.

H During Stage I, the child makes use of several aids to learning First, the word has meaning to the child, he is motivated by a desire to use the word for communication Second, he *sees* the word written by the teacher, he *sees* as he traces, he *sees* it as he writes, and he *sees* it in final type form. Third, by using direct finger contact in tracing, the child *feels* the word as he says and sees it. Fourth, by arm movement in tracing and in writing the word, the child *feels* the word as he says and sees it. Fifth, by pronouncing the word as he traces and writes it, the child *feels* the word with his speech apparatus Sixth, by hearing the word pronounced, the child is given an additional aid for retention. When all these

methods of learning are used, the child should learn!

I. How long a child remains in Stage I depends upon the degree of his handicap Some complete this stage in a few days, some in two or three months; and others, in a year

J The child is given no systematic help in phonetic analysis The emphasis is on structural analysis, especially syllabication.

Stage II Writing from Script.

A Stage I has been achieved when words can be learned without tracing The need for tracing is reduced gradually; that is, the number of retracings required to learn a word is reduced until tracing is no longer necessary In short, tracing is discontinued when the child can learn without it.

B The child learns a word by looking at the word in script, by saying it, and by writing it without copy as he says each part.

1 The child identifies the word he cannot write

2 The teacher writes it in small script, pronouncing each part The word is written as a whole A small card (perhaps three by five inches) is used in this stage.

3 If some tracing is necessary at the beginning of this stage, the child says each part of the word as he *traces* it. It is important that the word is spoken as in conversation, no distortion of the sounds of letters or syllables is permitted

4 The child says each part of the word as he writes it, *without the copy*

5 The word is always written as a whole by the child When an error is made, the child either retraces or looks at it (saying it to himself) until he can write it without copy

C The child's composition is typed immediately by the teacher.

D The child reads the typed copy without delay Silent reading is used to prepare for fluent oral rereading

E When tracing is not necessary, small cards (three by five inches) are used and filed in a small box

F No attempt is made to simplify the vocabulary, sentence structure, or concepts in the child's composition The learning and retention of larger words is, in general, better than that of shorter words

G Immediate and delayed recall is checked with the flash cards from the small file box.

consonant with literary quality and interest values. Preparatory and follow-up activities must be used to care for individual differences in learning to read.

Silent Reading Before Oral. In initial reading activities, silent reading should precede oral reading. This type of preparation for oral reading avoids word-by-word reading, develops the habit of anticipating meaning (i.e., by learning the skill of glancing ahead so that the eye is ahead of the voice, the individual develops a desirable eye-voice span), and makes it possible for the reader to be free to look occasionally at his audience. It will be noted that all systems of reading or approaches to initial reading instruction emphasize *silent before oral reading.*

Independence of the Reader. The average child does not achieve much independence in reading activities until he has attained high-primer or first-reader level reading ability. Hence, the in-between-class period must be preplanned to meet individual needs and to promote effective work habits

Growth in Word Recognition. Initial reading activities should develop some independence and versatility in word recognition. However, when word recognition is overemphasized in reading activities, many other facets of development are sacrificed. In short, initial reading instruction is not designed for the sole development of word-recognition skills and abilities. The emphasis should be on the development of an attitude of approach to reading in such a way that interests are fostered.

In all systems of reading reported as used in modern schools, a sight vocabulary is developed *before* much attention is directed to the mechanical analysis of words During the initial reading period, the child is taught to make maximum use of context, or experience, clues to word recognition. These context clues are further enhanced by the use of picture clues and language-rhythm clues. Visual perception is further strengthened

by teaching the child techniques for discriminating between word forms through the use of configuration, or shape, clues. Attention is directed to the fact that words differ in terms of their general appearance, or pattern. Visual discrimination is improved also by directing attention to distinguishing details. *All of these techniques are systematically developed during the initial reading period*

In most modern systems of reading instruction, the sight word techniques are used as a basis for systematic instruction in word analysis. The first step in word analysis is the use of phonetic analysis skills. Since visual rather than auditory analysis is emphasized, phonics rather than phonetics receives the lion's share of attention. Dr. Grace M. Fernald, however, has demonstrated that phonics can be by-passed so that the child can be taken from initial reading right into structural analysis, especially syllabication (14). Regardless of whether a tracing, kinaesthetic, phonic, or some other technique is used, *systematic instruction in word recognition appears to be essential for the development of independent and versatile reading habits.*

One of the goals of both reading-readiness and initial reading instruction is the development of the basic notion that visual symbols (or words) stand for, or represent, experience. One of the first basic principles of instruction in word recognition is: perception is enhanced to the degree that the child has a working control over concepts. These concepts exist not in the printed symbol and not in the experience; instead, they exist in the relationship between the visual symbol and the experience. Hence, meaning is one of the most potent factors in word recognition.

Regimented instruction has been found wanting in many respects. The teacher who attempts to use the same methods to develop word-recognition skills with all pupils is doomed to disappointment. The writer's clinical experience as well as classroom experience has demonstrated

PLAN TWO MODIFIED EXPERIENCE APPROACH

1. Reading-readiness book and supplementary experience records are used in a variety of combinations to screen out children who are not ready for reading and to develop readiness for reading.

2. Preprimers and accompanying workbooks are used for initial reading instruction, supplemented with experience reading charts

PLAN THREE EXPERIENCE APPROACH

1. Reading readiness is appraised and developed informally through activities growing out of direct and vicarious experience story-telling, experience records, dramatizations, science experiments, discussions, arts and crafts activities, rhythms, music, and so on

2. Initial reading activities are based on co-operatively developed experience records with controlled vocabulary and sentence structure

BASIC PRINCIPLES AND ASSUMPTIONS

Regardless of which approach is used, certain basic principles and assumptions are given consideration

Reading for Meaning One of the first considerations in initial reading instruction is the development of the thought-getting attitude—the attitude of reading for meaning To read for meaning, the pupils must have achieved the prerequisites for initial reading instruction; that is, they must have a sufficient maturity in dealing with experience by means of language to see the relationships between words and experience. To read for meaning, the pupils must have access to material that is not only within their experience and interests, but also rich enough in concepts to challenge their attention

Adequate Repetition of Vocabulary. To foster the attitude of reading for meaning and to facilitate retention, the initial reading materials should provide for the systematic repetition of vocabulary However, this repetition has been carried so far in some basal preprimers and in some reading-type experience charts that the literary quality has been reduced to the zero point Hence, vocabulary repetition should be considered in the preparation of records or in the selection of basal textbooks only in so far as it is

STORY HOUR

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everything but stand on her head to interest the children in a "content" built out of three or four words.

Approach to Preprimer. The approach to the reading of the first preprimer is made in a number of ways, depending on the recommendations of the authors of the manual, the experience of the teacher, and the background of the group. The first approach is sometimes made by the teacher's reading of the story as the children "follow" each line from left to right and discuss the illustrations. After the complete reading of the story by the teacher, the children reread it. The assumption is made that the first thrill of reading will offset the pretelling effect.

Another approach to the reading of the first preprimer story sometimes used is the guiding of discussion so that the exact verbal context is brought out. The children go through the story page by page (usually two to four pages), responding to questions raised by the teacher. The illustrations provide the clues to the written context. When a pupil uses a phrase or a sentence that actually appears in the book, the teacher directs attention to the fact that the words in the book are just another means of saying the same thing. When this approach is used, the rereading of the story brings out the wholeness of it and develops enthusiasm and interest for it. Since the vocabulary is usually repeated immediately in succeeding stories, accurate visual discrimination between words and perception of them is facilitated. Independence is acquired as the stories are read consecutively and as word-recognition skills are developed.

A third type of approach is sometimes recommended by which the first preprimer story is built from word cards. A pocket chart is used to hold the cards in place. (Very satisfactory charts of this type may be obtained from The Plymouth Press, Chicago, Illinois) For example, the teacher may discuss pets and lead up to the name of the first character in the primer by saying, "We have here a book of funny stories about pets. What kind of pet do you suppose our first story is about? Yes, it is about a very nimble little dog named Toby. Do you see his name on the page?" (The teacher puts the word *Toby* in the pocket chart.) This procedure is continued until the story on the first page has been reconstructed on the chart. By having the children find the chart words in the book, visual discrimination and perception are developed to facilitate retention.

A fourth approach to initial reading instruction involves the use of large picture books and story books—for group instruction—to prepare the pupils for the first preprimer. The large story book is another form of commercial reading chart often supplied with the basal-reading program. It is assumed that the children will enjoy reading from a large book more than they would from the traditional chart. The picture book is used to introduce the children to the characters in the series, to promote the reading of pictures, and to serve as a basis for experience records. Actual reading is done in the large story book before reading the smaller print in the first preprimer. Step *one* of this procedure is the reading of the picture book. Step *two* is the relating of the pictures and symbols in the large story book by discussing the picture and relating exact statements of the pupils to the printed words under the story. In step *three*, the first preprimer is introduced and a variation of the step two procedure is repeated Related workbook activities are designed to buttress the textbook activity.

Regardless of the amount and complexity of the paraphernalia devised by the authors of basal readers, the general aspects of a modified whole-story approach are used. The teacher either tells the story to the pupils and they "reread" it or she guides the class discussion so that the exact wording of the verbal context on the page is brought out. Just as

this fact. Children differ in motivation, in sensory acuity, in associative-learning abilities, and in a multiplicity of ways. What will be one child's meat will be another child's poison. Other things being equal, some children will succeed in initial reading activities by means of sight word techniques; others will require a word analysis, a kinaesthetic, a tracing, or another approach to the problem. A class of pupils is characterized by *differences*. These differences must be capitalized upon by a differentiated approach to instruction in word recognition.

The Basal-Reader Approach

The most widely used approach is made through basal readers. A detailed discussion of the basal-reader approach will be found in Chapter XXII; hence, a short description will suffice here.

Traditional materials for initial reading instruction include a reading-readiness book, two or three preprimers, and one or two primers. The best use is made of basal readers when the first-grade entrants are grouped in terms of reading-readiness achievements, when membership of these groups is kept flexible with frequent transfers and regroupings for special activities, and when individual pupil progress dictates the rate at which the basal material is covered and the nature of the complementary activities. The best use of basal readers undoubtedly can be made when combined with the experience approach.

The reading-readiness book of the basal series usually is designed to serve two purposes: to screen out those pupils requiring continued guidance in reading-readiness activities and to serve as a basis for the development of a reading-readiness program. Individual pupil achievement with the various activities of the reading-readiness book provides clues to the need for a systematic appraisal of readiness deficiencies by means of standardized reading-readiness tests and intelligence tests, or by means of informal procedures. The nature of the activities in the reading-readiness books—and pupil needs revealed through them—suggest essential enrichment and follow-up activities.

Questionable Practices. As the pupils progress through the reading-readiness book, they are led step by step to the point where they relate words to the things for which they stand and where they take their first steps into the reading world. Too often, however, there is a sharp break between the reading-readiness book and the first preprimer. Furthermore, at the time of this writing publishers have not provided teachers with additional reading-readiness materials to complement the basal book and, therefore, to meet the needs of pupils who may not be ready for initial reading instruction until a much later date, perhaps as much as two or three years later. (See chapter on Developmental Activities.)

When very little, or no, emphasis is given to the experience approach, children are taken from the reading-readiness book into the first preprimer. Even in this type of situation, wise teachers do not expect all children to progress at the same rate; only one group at a time is introduced to "book" reading in the first preprimer. Reading-readiness activities are continued with the other groups.

Many initial reading materials for a basal-reader program are developed around the idea that the pictures must carry the burden of the story. The pictures serve to display the action and the words tell what the characters are saying. There is some justification for this notion when it is further assumed that the *initial* reading vocabulary must be developed by means of the first preprimer. This idea may be *practical* in situations where conditions dictate a stilted initial reading program. However, the idea is not psychologically sound because the teacher must be a super-salesman and do about

proach, language-type experience records are used almost exclusively.

When the experience approach is used exclusively for initial reading activities, systematic attention is given to the vocabulary, sentence structure, and sentence length of the experience records. In this way, the records used for general language development are modified through teacher guidance to meet the necessary requirements for initial reading instruction. That is, as the children gradually achieve readiness for reading, increased attention is given to vocabulary repetition and the need for short one-line sentences to promote retention.

Introduction to Books. The children are introduced to "book" reading when they have acquired sufficient control over vocabulary and related linguistic factors. Roughly, this level of achievement has been reached when they have a reading vocabulary of fifty to one hundred and fifty words, depending upon the individual. This means that most children will have acquired control over the use of context clues, picture clues, language-rhythm clues, configuration clues, and the distinguishing details of words as aids to recognition. Some of the pupils will have acquired some control over phonetic analysis during the initial reading activities.

The idea of sharing experiences developed during the reading-readiness and initial reading stages continues to be fostered when book reading is introduced. The adroit teacher guides each child to books within his achievement level and interests. Through browsing, the child locates the book he wants to read. By means of silent reading—the habit learned during initial reading activities—the child enjoys the story and evaluates it for possible reading to his group. The child then has the privilege, opportunity, and obligation to share his book with the group. Reading to an attentive audience of contemporaries—not just to the teacher—creates a real situation for developing oral reading skills and abilities, especially reading for meaning.

In situations where the experience approach is emphasized, the following procedures often obtain. First, for reading-readiness and initial reading activities, much of the material is prepared co-operatively by teacher and pupils. Second, use is made of basal textbooks, supplementary textbooks, and trade books. Third, the children are grouped so that the materials and procedures are differentiated in terms of the interests and achievements of each group. (See chapter on Developing Basic Reading Abilities.)

The Justification for Experience Approach. Sketchy accounts of attempts to use the experience approach often have stirred up severe criticism. Some critics have dubbed the experience approach as incidental or opportunistic, thereby implying that it is haphazard. Since most people are inclined to react to labels, the unscrupulous often protect themselves by labeling their antagonists as progressives, communists, etc. The experience approach *is* incidental in that reading skills and abilities are developed as a part of the total school experiences of the children; that is, reading is not taught as a separate subject in a period set aside for isolated drill. The experience approach *is* opportunistic in that the teacher takes advantage of immediate opportunities and circumstances for developing skills, abilities, and attitudes basic to effective reading. An efficient teacher can provide for the *systematic* learning of word-recognition skills and the like through the experience approach.

Systematic learning is not guaranteed by the traditional use of the basal-reader approach. Surveys have convinced the writer that the traditional regimented use of basal readers precludes the possibility of systematic learning!

ADVANTAGES OF EXPERIENCE APPROACH

In the hands of an experienced teacher imbued with the new spirit in education

A VISIT TO THE TOY STORE

Bertha Smith · *Yonkers, N. Y.*

soon as possible, this prebuilding of the story content is discontinued so that the children meet "new" reading words in their verbal contexts (See chapter on Directed Reading Activities)

Authors of some recent manuals for basal readers have included suggestions for the use of the experience approach in preparing the children for the first story in the preprimer and in following up the directed reading activity Unless the inexperienced teacher has had rich professional preparation, she may feel a little more comfortable in using a combined experience–basal-reader approach As confidence is gained through improved competency, more and more use may be made of the experience approach The teacher will find increased satisfaction and superior results as she moves toward use of the experience approach

The Experience Approach

Initial Reading Materials. In an all-out experience approach, reading readiness is developed by means of *language*-type experience records and related activities; initial reading activities are based on *reading*-type experience records; and book reading in audience-type situations is introduced after the pupils have acquired sufficient control over initial reading skills and abilities, especially vocabulary. The first books to be read may be basal readers, basal science books, basal social studies books, or trade books In most modern schools, experience records are used to develop language readiness for reading. Often, basal reading-readiness books are used along with the experience approach However, in an all-out experience ap-

When groupings are made for any activity, the teacher should not assume that homogeneity is assured. In fact, homogeneity is a fiction. Children are no more alike than the proverbial two peas in a pod. For example, among the pupils in a given reading-readiness group, one may expect to find children with low normal intelligence who will learn very slowly; a few children with normal or superior general intelligence who acquire language skills slowly because of special psychoneurological deficiencies; children with normal or superior intelligence who are handicapped by a visual problem or a hearing impairment; and children with normal or superior intelligence who acquire language skills readily or at an expected rate. When grouping for reading-readiness activities, reading activities, or any other classroom activity, the teacher should *never* assume that individual pupil needs are even grossly similar or that progress will be achieved at the same rate by every member of the group.

Manner of Grouping. One of the questions often asked is this. "When I have two or more grades in one room, how do I group the children?" The questioner

sometimes assumes that for some mysterious reason the pupils in each grade should be segregated for instructional purposes. Of course, the answer is as obvious as the nose on one's face—once the face is seen. The face in this instance is an understanding of the needs of children. Too often we react to words One of the words to which we make unthinking reactions is *grade* When a grade—such as first grade or second grade—is mentioned, we immediately neglect the facts and react as though all second-grade children were different in fundamental ways from all first-grade children. There are children in first-grade classrooms who can enjoy reading third-grade books and there are children in the second grade who are not ready for initial reading instruction. So the answer is clear· group the pupils in a classroom to meet their needs rather than in terms of the number of years they have attended school.

Flexibility of Grouping There is general agreement that the key to the successful administration of a grouping plan is flexibility. Any plan for differentiating instruction is based on the idea of providing equal learning opportunities for children. These opportunities exist in

DEVELOPING AN EXPERIENCE RECORD

Blooma Zeigler   *Oswego, N.Y.*

and well grounded in educational psychology, the experience approach has several advantages over an outright basal-reader approach Some of these advantages are described briefly here

Purpose Reading activities are an integral part of the school life The pupils are given help on the *how* of reading *when* needs arise. This makes possible more attention to general child development and the fostering of desirable attitudes toward the uses of language.

Gradual Growth Reading-readiness activities may be merged with initial reading activities so that uninterrupted general language development is possible. For example, the transition from language-type records to reading-type records can be made gradually as the group achieves higher levels of competency. This also makes possible the introduction of each child to book reading when he is ready for this type of activity.

Interest The experience approach to initial reading instruction makes possible the by-passing of inane, uninteresting, and psychologically unsound preprimers sometimes serving as the basis for a basal-reader program Since some children have mental ages of seven, eight, or nine before they are ready for initial reading instruction, this possibility is a crucial one.

Social Development The experience approach emphasizes group co-operation and, therefore, contributes to the development of personalities that make for successful living in a democratic form of society.

Differentiated Materials The experience approach affords a sound approach to the development of needed skills of mentally retarded pupils Many children of this type acquire little skill in reading connected discourse. Furthermore, it is often true that their vocational needs may be satisfied if they acquire sufficient skills and abilities to read store bills, street signs, recipes, and the like The experience approach can be modi-

fied by using types of records within their experiences and mental abilities

Balanced Program. Both intensive and extensive reading are encouraged. Since reading is used as a social tool, needs are highlighted, interests are deepened and extended, and reading is used as only one learning aid. This creates a situation in which the children will read widely for main ideas and intensively for specific details

Citizenship. The experience approach to reading stimulates interest not only in classroom experiences but also in an ever broadening view of major events in the local community, the country, and the world Interest is stimulated in current events—in scientific discoveries, in the solution of social and economic problems, and in new literature. And so it is that current events materials, such as *My Weekly Reader*, come to be used as a means of meeting real needs in the classroom

Language Development. The experience approach may be used to capitalize upon the sequence of language development by providing for continued oral language guidance In using experience records, dramatizations, story hours, and the like for developing general language skills, abilities, and attitudes, the teacher is in a position to "pace" growth. For example, the language of the experience records approximates that used by the group, but the teacher also uses these situations to improve language usage.

GROUPING

Advantages of Grouping One effective means of differentiating instruction in terms of the interests and needs of pupils in a classroom is grouping There are frequent occasions in the classroom where grouping and the assignment of specific responsibilities facilitate informal activities such as in the preparation of a frieze or a dramatization. Then, again, grouping the pupils for reading-readiness or reading activities is an economical means of providing for varying rates of learning.

help on visual discrimination. However, the experienced teacher has learned that the inability to discriminate between word forms may be only a symptom of other fundamental needs. For example, the child may be mentally immature or have a visual defect. A short visual or auditory memory span may be a symptom of mental immaturity, inability to concentrate because of a frustrated personality, or a prospective reading disability of an extreme nature. Deficiencies observed by the teacher may be crucial factors to be considered in grouping.

Individual needs and interests should be the basis for grouping children for reading-readiness or initial reading-readiness activities. Teachers deal with two fundamental problems: learning the child and teaching the child

Number of Groups. Grouping is only one way to differentiate instruction. After a teacher has experimented with grouping procedures, she soon recognizes a wide range of achievement levels and needs within a given group In order to meet this problem, the inexperienced teacher is likely to decrease the size of each group and, therefore, the number of groups is increased, until she approaches a highly individualized form of instruction. This way of meeting the problem of individual differences is not in line with recent thinking. (See chapter on Levels of Differentiation.)

The inexperienced teacher or the one who has fallen into the rut of regimentation should plan to evolve over a period of months or years a satisfactory approach to differentiated instruction In the beginning, the teacher in a regimented situation probably should be satisfied by dividing the class into two groups: those ready for initial reading instruction and those in need of systematic instruction to develop readiness for reading. After these groups are organized and under way, it is a relatively simple matter for the teacher to break down each group into two sections on the basis of rate of progress and/or needs. When the teacher is required to administer more than four or five groups for any type of reading instruction, she has more than she can do. *There is a very real limit to which grouping may be used as a means of differentiating instruction*

The experience approach to both initial and later reading instruction makes possible higher levels of differentiation. However, the teacher in a regimented situation has a multiplicity of problems to be ironed out before higher levels of professional competency may be achieved Hence, she should content herself with the well-considered evolution of her educational practice

Size of Class This is a crucial factor in the evaluation of an educational program. But wait a moment. High levels of professional competency in differentiating instruction have been demonstrated by master teachers in classrooms where the enrollment has ranged from thirty-five to fifty! By and large, however, the child gets a better break when the first-grade classroom enrollment is limited to twenty or twenty-five pupils This enrollment may be increased as the pupils acquire tools which make them more and more independent in succeeding grades. Quite often, primary teachers struggle with the problems of forty or fifty beginners while secondary-school teachers in the same system have classes of twenty-five to thirty-five. This is a topsy-turvy situation which will continue until school administrators and parents have it called to their attention.

Excessive enrollments in primary school classes sometimes are characteristic of the school system. Further investigation often reveals the regimented use of basal textbooks, excessive pupil failures and nonpromotions, wholesale retardation, monthly or six-week report cards on which the child is rated in terms of his relative achievement in the class, and other unsavory pictures. While it is possible for a rugged and inspired teacher to do effective work within this type of

situations where the pupil is shifted from one group to another as his achievement level and needs vary. The writer has found that an occasional child may progress from the lowest reading-readiness group to the top reading group during the first six months in a first-grade classroom. Occasionally it is possible to overestimate a child's reading aptitude, in which instance he may find a fast-moving group too much for him. Flexibility of grouping promotes personality development by challenging the pupil with appropriate learning situations and by avoiding those in which he might be frustrated by tasks too easy or too difficult. Flexibility of grouping should be considered from another point of view; namely, achievement in activities other than reading. Many of the activities in a democratic classroom are based on committee plans. Examples of these include art, music, construction, dramatization, and science activities. A child in a slow-moving group may excel another in a fast-moving group in such things as art and dramatization. At some time during the day or week, each child should have worked with every other child in the classroom.

Flexibility of grouping is essential for a number of reasons. First, the activities in an interesting classroom vary from hour to hour and from day to day, necessitating different types of contributions and therefore providing different opportunities for achieving. Hence, groupings should have a constantly changing membership to meet class needs. Second, flexible grouping builds rapport—or harmonious working relationships—between members of the class. No teacher should ever be guilty of assigning a given individual to a *dumb* group or a *bright* group so that he is stigmatized by a teacher-made label. One label can be just as bad in its effect on the individual as another. Flexible grouping facilitates the development of confidence and self-respect in things the individual can do. Third, flexible group-

ings provide equal learning opportunities in all schoolroom activities. Successful teachers make their groupings flexible and tentative because the procedure is psychologically sound.

Bases for Grouping. For initial reading activities, groups may be formed on the basis of data obtained from standardized reading-readiness tests, from systematic observation, or both. If a systematic program for the prefirst-grade testing of children has not been set up, then the teacher should work with the pupils a few days before tentative groupings are made. An entire reading-readiness test may be given to certain pupils to provide needed data, or parts of a test may be administered to obtain specific information on certain types of development. For five cents the teacher may obtain an individual type of reading-readiness test which may be used many times. In any event, the teacher is wise to double check on subjective evaluations with objective test data.

When using a basal reading-readiness book or an experience approach, the experienced teacher may detect individual needs through observation of responses. A few pupils, for example, may be generally immature and, therefore, require the help given to a slow-moving reading-readiness group. Some may require guidance for the development of a few specific reading-readiness skills and abilities—as, for example, sentence sense or visual discrimination. These pupils may be placed tentatively in a fast-moving reading-readiness group. Others may be ready for initial reading instruction, or even book reading, and, therefore, may be grouped for initial reading instruction.

Deficiencies in background of information may be exhibited by a child with a limited vocabulary or by one who has too few facts to contribute to a discussion. When a child cannot match words or word strips with the appropriate ones in a sentence or phrase strip, this may be evidence of the need for additional

ent to the store. | We saw Mrs Bunny. | John spent 5¢ for an
man gave us rabbits | She had a big bunny. | Anna spent 5¢ for a
e rabbit cost 5¢ | It cost $1.00 | They spent 10¢ for both

have two long ears | We saw some ☐ | Dear Mr Johnson
hop and hop. | We saw a ☐ | We liked your sto
hat am I? | We saw many | First Grade Schol

AFTER A VISIT TO THE TOY STORE — *Yonkers, N.Y.*

Bertha Smith

connection with an interesting study of seeds.

SEEDS

We have a seed collection
We have a variety of seeds.
Some are large
Some are small
Some are middle-sized
Each plant has its own kind of seed

In connection with another project, Mrs. Koester's class developed this interesting story

TWO LITTLE CHICKIES

We have two baby chicks
One is smaller than the other one.
We think the big one is a rooster
We call the big one Blackie
We call the small one Fluffy
Blackie can fly more than Fluffy.
They eat and eat and eat!

Miss Anna Naugle, State College, Pennsylvania, developed the following charts on various occasions with her first-grade class.

OUR TOYS

Click, click, click.
Wind up the drum major.
Rat-a-tat
Rat-a-tat
Rat-a-tat-tat-tat
The drum major played.

framework, she is laboring against almost overwhelming odds

Experience Records

Experience records may be used to serve two purposes to develop language facility and to develop one specific aspect of language, namely, reading skills and abilities Language-type records are used in the kindergarten and succeeding grades as a means of systematically developing basic language skills and abilities as a part of the everyday experiences of children Reading-type records should possess the literary quality of the language-type records in so far as possible and at the same time provide the necessary control over vocabulary range and repetition and over sentence structure to facilitate reading These two general purposes which experience records serve should be kept clearly in mind by the teacher.

The above point of view has been described very clearly by Fanchon Yeager (17, p 76)

It must be clearly recognized by the teacher that these two situations—story telling for purposes of later reading and the development of accurate compositions from an experience—are two entirely different activities In order to clearly differentiate between these two types of compositions, those used for reading purposes may be characterized as *Reading-Chart Stories* In like manner, the second type of composition activity may be called *Language Stories* In the *Language Stories*, the child must be guided and directed, to an extent, in what he tells, but he is left free to express himself as vividly and with as much variation in vocabulary as he is capable of He must be led to develop an idea as completely and in as much detail as is possible for him to do He must make use of as many ideas as he has In no sense are the compositions thus resulting possible for use in reading, the vocabulary is too divergent, too overpowering, sentences vary in length and in complexity It all comes back to this the two types of compositions are for different purposes and are told differently *Language Stories* should be clear, accurate, truthful accounts of what took place, in as much detail and as complete as the child is capable of giving For reading, the *Reading Chart Story* may be—should be—whimsical, imaginative, full of humor and action, vocabulary and sentence length controlled The child, as well as the teacher, needs to recognize that the two situations are different, else he may be confused

In a description of a classroom situation where the experience approach to reading was used, Dr. Nila Banton Smith called attention to the skillful way in which the vocabulary of the reading charts was developed to facilitate book reading (42, p 238).

During all these activities the teacher has in mind the vocabulary used on the early pages of some primer which she thinks will best meet the needs and interests of this particular group of children She takes care to weave this vocabulary into the early reading charts as a means of preparing the children for their first book reading This is not carried to such an extent as to interfere with the children's spontaneous expression or to cause them to feel in any way that the little stories are not their own.

When classified as to use, experience records fall into two categories: language-type and reading-type. The form into which a record is put provides another basis for classification In order to describe the various types of organization, the following classification is used in this discussion: narrative type, "What we want to know" type, records of plans, progress records, records of experiments, diary records, news records, reminder records, dictionary charts, and exhibit charts.

NARRATIVE-TYPE RECORDS

One of the most frequently used types of records is the experience chart This record is usually an account of an experience by the class or a group.

The following example of a narrative-type record was developed with an advanced first-grade group of the Ethical Culture School by Mrs Elsie Koester. This is one of several charts prepared in

QUESTIONS TO ASK THE WHOLESALE MAN

What kind of food does he sell?
Where does the food grow?
How does the food come?
When does he sell the food?
What time does the farmer bring his food?
Does the storeman take helpers along when he buys?
What time does the market close?
How does the canned food come?
Where does sour food like pickles come from?

Dr. Nila Banton Smith reported this example of pupil questions (33, p. 452):

QUESTIONS ON HOLLAND

Where is Holland?
How big is Holland?
What does Holland look like?
What do the people do to make a living?
What do the children play?
Why do they have so many boats and ships?
What kind of homes do they have?
What do they eat?

A group of children in Kansas City, Missouri, recorded "Things We Want to Know" in this fashion as preparation for an excursion to a dairy farm. This was reported by Miss Helen Blackburn (37, p. 25):

THINGS WE WANT TO KNOW

How cows are milked.
How a separator works.
Which cows give the most milk.
How milk is pasteurized.
How milk is put into bottles.
How milk goes to the city.

The following record of problems arising over the winter months has been reported by Miss Daisy Parton, Director, Verner School, University of Alabama (44, p. 19). These questions were raised by a group of seven-year-olds.

What is the best temperature for our room?
How can we keep our room at the right temperature?
How do you read a thermometer?
At what time of day is it usually the coldest?
Why is the air near the floor colder than the air near the ceiling?

What makes the mist sometimes form on the inside of windows during cold weather?
What makes frost?
What does frost look like under a magnifying glass?
How cold must it be to frost?
How cold must it be to freeze?
How can we help the birds during the cold weather?
How can we keep from taking colds?

These are the problems which challenged Miss Ethel Litchey's Grade-2B group in Waterloo, Iowa:

THINGS TO FIND OUT

How are telegrams sent?
What is a V-letter?
How do letters get from the train to the post office?
What are the marks on a stamp called?
What does the postmark tell?
How much does it cost to send an air-mail letter?
What does it cost to send a letter across the ocean?
What is a special delivery letter?

Sometimes the answers to questions are found in books. For beginners, the teacher often shows the children how to use books by reading selections to them for evaluation. Then, again, experimentation is the best way to learn. Reading and observation were used as a means of obtaining information on the following questions raised by Miss Anna Naugle's first-grade group, State College, Pennsylvania.

KOALA BEARS

How do they climb trees?
How do they ride pick-a-back?
What do they eat?
How do they breathe?
Where do they sleep?

FROGS

How do frogs jump?
How do frogs swim?
What do frogs' eggs look like?
What do frogs eat?
How do frogs eat?

FAUN

Faun is a little dog
Faun can run
Faun can jump
Faun can play
He says, "Bow-wow "

INSECTS

Insects have six legs
Some insects have wings
Some insects have no wings
Their bodies have three parts
They have a head,
a middle part, and a back part

TEDDY

Nicky found Teddy
Teddy is a little gray mouse
He has a long tail
He has whiskers
He wiggles and wiggles
He nibbles his bread
Cuddly little Teddy

LITTLE CALVES

Pretty little calves,
Come and eat some hay
Here is some salt, too
It is your candy
Now run and play, little calves

Not all of life is digging for information. Sometimes it is fun to "just imagine " Leastways, several pupils in Miss Anna Naugle's first-grade group enjoyed the opportunity of expressing their feelings on such matters as snowflakes and icicles!

Snowflakes, snowflakes,
You are baby stars
              By Ellen

I like to play in the snow
Soft, soft snow
              By Sue Lane

A big, big icicle
Hung on the cellar wall
The sun came out
And it began to fall
Drip, drip, drip
              By Us

In developing an area of experience in the kindergarten or elementary grades, successful teachers study the backgrounds of their pupils and guide them in setting up goals of learning. Usually, the questions stated by the pupils are organized on the blackboard and transferred to a chart as a summarizing activity. This type of record is often called a question chart.

Records of pupil questions may be used as a means of motivation in two different types of situations. First, the statement and organization of pupil questions is a worth-while means of initiating the systematic development of a large area of experience. Second, pupil questions—organized in advance—may be used to get the most from the guide on an excursion or from a visiting speaker in the classroom. One of the essential elements in efficient learning is effective planning.

The development of a "What We Want to Know" record serves several purposes: First, pupil effort is enlisted when personal needs are to be satisfied by a given activity. They are able to see a real reason for the activity; learning is made purposeful. Second, by observing the types of questions asked by the pupils, the teacher may appraise interests and background of information. Third, the formulation of clear-cut questions stimulates good thinking and, therefore, facilitates language development. Fourth, the organization of the questions into an orderly sequence develops skills and abilities basic to speaking, reading, and writing. Fifth, pupils are given systematic guidance in planning their activities. This facilitates the development of efficient work habits.

Great variety characterizes the formation of experience charts The following is an excellent example of a question chart This was developed by Mrs. Elsie Koester with a group of first-grade pupils in the Ethical Culture School, New York City, as follows:

June Pounds   Salt Lake City, Utah

Telegraph messages sent across the ocean are called cablegrams.

A first-grade group in charge of Mrs Nora Graffius, State College, Pennsylvania, almost got into deep water with some of the things they wanted to know about "What Makes Things Go?" However, they didn't have to take a course in physics to come to these conclusions·

WHAT MAKES THINGS GO?

Spring	Wheels
Motor	Paddles
Push	Wind
Pull	Electricity
Lift	Steam

Miss Helen I. Blackburn makes these pertinent comments regarding record keeping (37, p. 24):

In some situations, record keeping, which is recording the life the children are living, is thought of not only as the teacher's task. Certain records kept by the children themselves are worth while in showing direction and progress of the group In these situations the children and the teacher together plan and record the work of the day, and check the plan to see what progress is being made. (There is danger here in too much formality unless there is great flexibility in planning and executing the plan)

RECORDS OF EXPERIMENTS

Able classroom administrators have often found that there is more time in the school day for enrichment activities when the experience approach is used. Furthermore, the trend to "postpone" initial reading instruction for a great

RECORDS OF PLANS

In addition to questions raised by the pupils, plans for achieving goals are necessary Efficient workers make general and detailed plans so that they can check progress. Since most plans are usually sketched on the blackboard, they are transferred to charts

The following is an example of a set of general plans developed by Miss Anna Naugle with a first-grade group in State College, Pennsylvania

PLANS FOR OUR PROGRESS

Give talks
Sing songs
Read stories
Read poems
Have a movie
Have a science show
Have a play

Miss Campbell, first-grade teacher of Madison, Wisconsin, developed these plans with her pupils (49, p 7)

OUR PET PLANS

Things to do —

Bring pet pictures to school
Bring pet books and stories to school
Bring toy pets to school
Find out how many children have pets
Bring real pets to school
Go to see some pets
Tell stories about our pets
Make a book of pet stories
Read our pet stories to the other First Grades
Find pet stories in the Library
Find pet poems in the Library
Make poems about pets
Make toy pets for a pet store

In planning a trip to the bakery with her second-grade class, Miss Hinz of Milwaukee, Wisconsin, developed this record (49, pp 7–8)

THINGS WE WANT TO KNOW ABOUT THE BAKERY

How the machines make the bread
How the dough is made
How the wheat is ground
How doughnuts are made
How sweet rolls and coffeecakes are made
How cakes and cookies are made
How the bread is shaped

PROGRESS RECORDS

Awareness of small increments of progress is a potent factor in learning. This awareness may be developed, in part, by reviewing "What We Want to Know" records and records of plans Also, there may be occasions when special records of achievements should be developed. These may be individual records or records of group or class achievement. Titles for records of this type range all the way from "What We Have Done" and "Things I Have Done" to "Interesting Things We Have Done" and "The Results of Our Experiment."

The following record of progress was reported by Miss Helen I. Blackburn of Kansas City, Missouri (37, p. 25):

WHAT WE HAVE DONE

Decided size of pen
Measured to find out how much wire is needed
Found out what the wire would cost
Bought the wire

A group of children in the Pennsylvania State College summer demonstration school summarized some of their achievements this way

SCIENCE INFORMATION

We learned about air by experimenting
Air is all around us
Air has oxygen in it We breathe it
Air can push It has pressure.
Air can move It becomes wind when it is in motion
Air has buoyancy An air space can keep a ship afloat

Here are some ideas Miss Ethel Latchey's Grade-2B group, Waterloo, Iowa, picked up from the study of how messages are sent:

HOW WE SEND MESSAGES

We write letters and post cards
We talk over the telephone.
We send a telegram
Some people send messages by radio

paper I wrote on the paper with the mixture I put together in the test tube. I then used the candle again and the lines came out very well.

Chemist
Robert Gray

March 4, 1942

CARBON DIOXIDE IN WATER

My second experiment was carbon dioxide in water. I was successful the first time, but the words were too hard so I had to look them up in the dictionary. I looked up the words *effervescence* and *precipitate*, effervescence means bubbles and precipitate means foggy. The solution I used to make lime water was one-half measure of calcium oxide in a test tube full of water and shake well then let set, this is lime water. Put some of the lime water in a test tube ¾ full. Look closely at the tube and you can see carbon dioxide.

Chemist
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March 26, 1942

PREPARATION OF SULPHURIC ACID

My third experiment was preparation of sulphuric acid. I had to do it twice before it worked. The solution I used was to mix together on a piece of paper one-half measure of sulphur and one-half measure potassium nitrate. Then I put one fourth of this in a clean dry test tube and heated it over a flame. I saw the fumes and "Boy!" did it smell awful!

Chemist
Bobby Lee Gray

March 31, 1942

TEMPERATURES EFFECT ON SOLUBILITY

My fourth experiment was temperatures effect on solubility. It worked all right the first time. This time I did not have trouble with the word turbid. I learned a new word hydroxide. The solution I used was to add one measure of calcium oxide to a test tube full of water. "Shake well and let set till clear." Then I poured some of this into another test tube and heated it slowly over a flame. Then the book said to notice that the liquid becomes cloudy or turbid proving that calcium hydroxide which was formed when calcium oxide was added to water is less soluble in hot water than in cold

Chemist
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April 15, 1942

BEHAVIOR OF SULPHUR AT DIFFERENT TEMPERATURES

My fifth experiment was behavior of sulphur at different temperatures I did it three times before it worked I had almost gave it up, but didn't I broke two test tubes on it. When my teacher helped me it worked, but it had an awful smell The things I used were ten measures of sulphur and heat slowly over a candle The different stages were light straw color, brownish black, and black It was liquid then solid then liquid again. I got rock like pieces of sulphur and some looked like buck shot

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April 7, 1942

DIARY RECORDS

A diary-type of experience record may be used to record important school events and the progress of a unit Used in these ways, they provide worth-while review materials.

The following example of this type of record was developed by Miss Katherine Christ with pupils in the demonstration school of the State Teachers College, Kutztown, Pennsylvania. It will be noted that plans as well as achievements have been recorded.

Monday
We are going to have a valentine shop.
We will make a counter.
We will make valentines.
We will make signs.
We will sell valentines.
We will use the money to buy goldfish.

Wednesday
We made a counter for our shop
We used orange boxes and brown paper
We made signs.
The signs say, "Valentines for sale. Kindergarten."

Thursday
We made many valentines.
They are very pretty
We used colored paper.
We cut out pictures.
We pasted them on hearts.
Some are big.
Some are little.
A few children made price tags.

many first-grade entrants has made it possible to meet more fundamental needs of children. One set of these needs may *be met through worth-while science activities.* Record keeping is a crucial part of adequate guidance in science.

Mrs Elsie Koester, Ethical Culture School, New York City, developed this initial record of a science experiment with her first-grade class:

Experiments

We are having experiments
We planted lima bean seeds.
One seed is in rich dirt.
One is in poor dirt.
One has water
One has no water
One is in the shade.
One is in the sun
We are waiting to see how they grow.

The above experiment was terminated in true scientific fashion by summarizing significant conclusions

What Happened to Our Experiments

We finished our experiments
The plant in the shade died
The plant in the sun grew green and strong
The plant without water did not come up
The plant with water grew large
The plant in the rich dirt grew bigger than the one in poor dirt
We know now that all plants need water, sun, and rich dirt

There are experiments and experiments. Is there a boy or girl who at some time or other hasn't tried his hand at the culinary art? One way to attract mother to the monthly meeting of the Class Mothers' Club is to tempt her with cookies or punch. Here are some recipes approved by Miss Anna Naugle's first-grade class, State College, Pennsylvania

Christmas Cookies

2 cups flour
3 teaspoons baking powder
½ teaspoon salt
½ cup butter
1 cup sugar
1 egg
1 teaspoon vanilla

Pumpkin Custard

5 eggs
2 cups sugar
2 teaspoons salt
1 teaspoon cinnamon
1 teaspoon nutmeg
6 cups pumpkin
6 cups milk

Punch

1 dozen lemons
½ dozen oranges
6 cups pineapple juice
6 cups sugar
8 quarts water

Rice Krispie Squares

1 box Rice Krispies
24 marshmallows
½ cup of butter
Melt butter and marshmallows.
Pour over Rice Krispies.
Stir carefully
Pour in buttered pan.
Pat with a spoon.
Let cool
Cut into squares.

Miss Lethal Kiesling of the California, Pennsylvania, State Teachers College, discovered an older boy who was extremely retarded in reading. From an interview she learned that Robert's chief interest was chemistry. He had collected an amazing amount of chemistry equipment and materials, but he was frustrated when confronted with a book of experiments. Using this interest, Miss Kiesling taught the boy to read by means of the experience approach. The following are some reports of important experiments taken from a *Book of Chemistry* prepared by Robert:

Fire Ink

My first experiment was fire ink. It wasn't very successful the first time because I put the candle too close to the paper and I used a dirty pen point

I used one-half spoonful of potassium nitrate and one-half inch water. Then I heated it over a candle. The next thing I did was to get a clean pen point and a piece of clean

paper. I wrote on the paper with the mixture I put together in the test tube. I then used the candle again and the lines came out very well.

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They are very pretty.
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We cut out pictures.
We pasted them on hearts.
Some are big.
Some are little.
A few children made price tags.

A "THANK-YOU" LETTER

Maude McBroom   *University of Iowa*

Monday
  We made a big sign
  It says,
  "We have valentines for sale
  Some are 4 for 1 cent
  Some are 3 for 1 cent
  Some are 2 for 1 cent
  And some are 1 cent.
  Come and buy."

Wednesday
  John brought a cash register
  Peggy brought a telephone.
  We have a red heart apron for the store
    keeper
  We made three red hats for the sales people
  We will have the first sale on Friday
  We will sell valentines to the first grade

Monday
  The first-grade children bought many valen-
    tines
  We made 60 cents
  We must make more valentines
  The other children in the building want to
    buy valentines too
  Next week we will buy our goldfish

In connection with a unit on Gardens, Miss Campbell's first-grade class in Madison, Wisconsin, developed this diary (49, pp. 5-6).

How Our Narcissus Grew

January 4-11
  Sharon Lee brought some bulbs to school
  We put them in a pretty dish.
  We put moss, stones, and water in the dish.
  We put the bulbs in a dark place for a week.

January 11-25
  We took the bulbs out of the dark place
  The bulbs have long white roots
  The leaves are yellow and white.
  The leaves are growing greener and greener
    every day

January 25-February 1
  We saw a bud today
  It is growing bigger and bigger
  It will open soon

February 1-5
  Our bud was open on Monday
  There are many little flowers in a bunch.
  They are white with orange centers.

February 8-11
  All the flowers are out.
  There are twelve little flowers on one stem.
  They smell like perfume.

  Thank you, Sharon Lee, for the bulbs
  We liked to watch them grow.

In a recent issue of *Primary Activities*, published by Scott, Foresman and Company, Miss Elsie Nelson Chubb reported on the fruitful study of "Feeding the Birds." Undoubtedly this diary was developed and read with considerable enthusiasm by her combined first- and second-grade class (9).

Our Diary

January 16
  We will feed the birds. We wrote to Mr.
  Larson to ask if we could come to see his
  bird tray

January 17
  Mr Larson said, "Come."

January 20
  A committee went to see Mr Larson. He
  feeds the birds suet, meat seeds, and bread

January 24
  Billy brought a pole The boys made the bird
  stand Mr Frechette helped us put it up
  We stood it against the fence and fastened it
  with wire

January 25
We fed the birds bread crumbs today. We will take turns feeding them every day.

January 27
How the birds eat! Bluejays and chickadees!

January 30
Today we have some suet for the birds. We fastened it to the tray with nails. We fastened some to the fence, too.

February 3
It is fun to watch the birds from our window. Today there were seven birds at the feeding tray at one time.

February 7
We put some food on the ground. Then the little sparrows can eat there, too.

February 10
Billy brought some chicken-feed today. The birds seem to like it.

February 15
We always have plenty of food to give the birds. Many of us have made feeding places at home.

NEWS RECORDS

In an up-and-coming classroom where democratic processes are allowed to operate, there are many red-letter days. The tadpole is now a frog. Someone brought a new bunny to school. A parent donated a monkey or a baby alligator to the science room. Several pupils helped the science teacher feed Blackie, the pet blacksnake. A science show is being planned by the class. Two robins—reported by John—are another sign of spring. Biddie, the pet hen, actually hatched the duck eggs! Room Two now ranks second in the paper campaign. Today, the class will visit a hatchery. All these and other events are written up by the teacher and the children for the bulletin board. Perhaps the teacher announces a surprise on the black board. Or maybe a chairman of a group permission to paste a notice dramatization on the blackboard funny looking marks on the bl or on the bulletin board hold n They take on meaning.

When the news events are duplicated for individual booklets, they provide interesting reading. News booklets and other types of booklets prepared by individuals and groups are valuable additions to the reading table or library center.

These news records were prepared by Miss Anna Naugle and her pupils of State College, Pennsylvania:

SCIENCE NEWS

We have 3 tadpoles.
They have 2 legs.
They will get more legs.
Look for more legs. *Monday, July 1*

One tadpole has 4 legs.
Its tail is short. *Wednesday, July 5*

A SURPRISE

Oh, look.
See the four-legged tadpole.
He has no tail
He sits on the stones.
He sits on the moss
He is a little frog now. *Monday, July 10*

REMINDER RECORDS

Learning how to live together is an important part of school life. Discussion of ways to get work done effectively, of how to be helpful, of how to play safely, of how to protect one's health, and the like provide one approach to the problem. It is always well to talk things over before "the horse is stolen." Discussions followed with co-operatively developed records of agreements emphasize prevention rather than correction.

Effective use was made of the following charts by the first-grade pupils of Miss Anna Naugle, State C 'ege, Pennsylvania:

How to Rep CE
Telephone 2(
as soon as yc

Ten Fire Tanks.

alarm

5 and 5 are 10.
We are 10 fire tanks.

Fire bell   School

Ding dong. Ding dong.
Ring me   for a fire

Drill   School 18.

Safety Rules—P.S 10

...ng a ling ling.
...will have a fire drill.

We will get our coats.
We will go down the stairs.

Do not play with matches
Do not play with fire.

MORE EXPERIENCE RECORDS

Bertha Smith   *Yonkers, N. Y.*

RULES FOR THE FIRE DRILL.

Stand when the fire bell rings
Walk outside
Do not run
Do not push
Do not talk

IF I AM A FIREMAN WHEN I GROW UP

I must be strong
I must be healthy
I must be brave
I must be kind
I must be helpful
I must be a good thinker

HOW TO GROW HEALTHY

I will eat good food
I will drink milk
I will get plenty of rest and sleep
I will sleep with my window open
I will play outdoors in the sunshine

IF I AM A GOOD HELPER

I will put my playthings away
I will go to bed at 7 00
I will get up when Mother calls.
I will dress myself.

I will eat good food
I will get to school on time

SAFETY RULES FOR WINTER FUN

Do not ride or slide on streets where there is
traffic
Tell Mother and Father where you are going.
Do not skate on thin ice
Do not skate or play near a hockey game

LIBRARY RULES

Work quietly in the library
Do not talk
Handle books carefully
Have clean hands
Do not hurry—read your book well
Never take too many books
Put books in the right place

HOW WE CAN BE GOOD WORKERS

Look and listen carefully when work is given
Do our own work.
Do our best always
Keep busy
Work quietly
Do not bother other children
Take turns
Do not talk when someone is talking.

Mrs. Koester's first-grade group in the Ethical Culture School, New York City, made some resolutions at the beginning of the New Year:

NEW YEAR'S RESOLUTIONS

Try to keep well.
Try to rest quietly
Try to keep the room tidy.
Try to work quietly.
Try to be on time
Try not to interrupt others.

In preparation for an excursion, Mrs. Huiz's second-grade class in Milwaukee, Wisconsin, reviewed some reminders this way (49, p. 8):

THINGS TO DO ON OUR TRIP

Take care of ourselves
Keep up with our leader.
Listen to our leader.
Only one person talk at a time.

DICTIONARY CHARTS

With very little effort, the teacher can promote an interest in words This interest can be directed toward both the many meanings of a word and the recognition of words. In either case, the preparation of a picture-dictionary or a chart will provide an attractive means of self-help.

In Miss Walton's first-grade room, the children prepared an illustrated chart to show how the word *head* could be used. This discussion, of course, led to the consideration of many other polysemantic words (49, p. 10).

MANY HEADS

Head of a horse.	Head of a nail
Head of a dog	*Head* of the hammer.
Head of a boy	Head of a cow
Head of lettuce	Head of a girl
Head of the family.	Head of cabbage.
Head of a cat.	Head of a pin
Head of a man.	Head of a bed.
Head of a woman.	

EXHIBIT CHARTS

Mrs. Elsie Koester's first-grade group (Ethical Culture School, New York City) developed a short unit on seeds. They collected seeds, read about seeds, asked questions about seeds, and experimented with seeds. A surprising number of different types of seeds was collected by these city children. This collection was organized on a large piece of oak tag with the title *Seeds, Seeds, Seeds.* Each type of seed was attached to the chart by means of Scotch tape and was appropriately labeled. This collection included many kinds of seeds. milkweed, orange, rose, string bean, barberry, plum, lemon, coffee, cherry, golden rod, grape, acorn, pepper, cantaloupe, and pine cone.

DEVELOPMENT OF EXPERIENCE RECORDS

The systematic development of an experience record involves (1) the *preparation of the children through experience and discussion,* (2) the *identification of a clear-cut motive for recording the experience,* (3) the agreement on the general type of record to be employed, (4) the preliminary drafting of the record by co-operative effort, (5) the editing and final revision of the record, (6) the preparation of needed illustrations for the record, and (7) the construction of the record in permanent or semipermanent form. Experience records are co-operatively developed, and based on immediate activities and first-hand experiences.

Preparation. As implied by the term *experience record* or *experience approach,* the record, or chart, is an account of experience—past, present, or predicted. So the first step in the development of an experience record is to make sure that the children have something vital, interesting, and worth while to record.

The experience to be recorded may be either vicarious or direct. Vicarious experiences may be obtained by listening to the reading of stories or informative material, by viewing movies and still pictures, by listening to an invited speaker on some interesting topic, and so on. Direct experiences are acquired through excursions to places of interest,

by experimenting, by construction activities, and the like. In a well-rounded-out experience, use is made of experiences ranging all the way from direct to vicarious.

Direct experience alone does not insure understanding. Through discussion concepts are clarified and developed And, too, discussion affords an opportunity for children to share information and interests, thereby learning from one another. Hence, well-directed discussion is an important element in the preparation of the children for the development of an experience record

Enlisting Pupil Effort. Learning efficiency is improved to the degree that an activity meets individual pupil needs This is another way of saying that learning should be purposeful The child should have a clear-cut motive for developing and using an experience record The following is a list of some of the purposes that may be served by various types of records

I. To record class and group plans
  A. To outline projects
  B. To organize a class program for a special occasion
  C. To list specific questions raised in the group
II. To record rules or standards agreed upon by the group
  A. To list standards of acceptable oral reading
  B To list standards for evaluating acceptable speech habits
  C. To list rules for developing independent work habits
  D. To list new resolutions
  E. To list reminders of acceptable behavior for excursions
III. To prepare a booklet of individual- or group-dictated stories on a given center of interest
IV. To record experiences
  A. To keep a diary of interesting events
  B. To keep an account of experiments
  C. To summarize a class, group, or individual activity

V. To chart directions for developing centers of interest
  A. To outline content of a mural or frieze
  B. To give the steps in a construction activity
  C. To give directions for a recipe
VI. To record and to display literary efforts of individuals and groups
VII To invite speakers for special occasions
VIII To ask permission to visit a place of special interest
IX. To thank others who have rendered special service
X To label and describe objects in a classroom exhibit
XI To announce a program or special event
XII To list books for reference
XIII To assemble small items for an exhibit
XIV To record progress

The chief criterion to be satisfied when deciding whether a record should be made of a given activity is this: do we need it? Not all experiences merit even casual consideration for recording If a permanent or semipermanent record will serve the needs of the individual or group in question, then the development of an experience record may be justified. A poem or a song composed within the class may be recorded for future use. A recipe may be recorded to serve as the guide for a group in a given activity. Questions and problems may be recorded to guide individuals and committees. If a given experience must be recorded for some worth-while future use, then the pupils will be motivated to develop the records.

Type of Record Needed After the children have agreed on the use of the record, the next step is to consider the kind of record which will be best for the purpose. For example, decisions must be made as to whether the record should be a narrative-type chart, a pictorial-type chart, a booklet, a stereopticon

slide, or some other type. After this is decided, the size of the record should be considered.

The use to which a chart is to be put should determine its dimensions. In general, charts are made in three sizes: large size (18 by 24 or 18 by 36 inches) for group or class use; medium size (9 by 12 or 12 by 18 inches) for reading-table use; and small size (6 by 9, 8½ by 11, or 9 by 12 inches) for individual use.

The type of material employed for the final product depends upon how long it will be used. Oak tag, or tagboard, is used for permanent records. Manila paper, newsprint, wrapping paper, and ordinary writing paper are adequate for semipermanent records.

Preliminary Draft. The preliminary draft of an experience record is usually made on the blackboard. Since the central purpose for developing an experience record is the *co-operative* organization of information for future reference, the teacher plays a major role in guiding the suggestions, considerations, evaluations, and revisions. Every-pupil participation is essential. The common center of attention should be the blackboard where the business at hand is being recorded by the teacher.

During the preliminary discussion, the children should have identified the central idea of the chart. If this has not been done, then the children may agree upon the main idea and dictate the title of the record. The title should be a short phrase to point up the experience, expressing the central idea. There may be sound pedagogical reasons for agreeing upon the title for the record after the composition has been prepared.

Before the preliminary draft is completed, the pupils may discover that they have too much material for one chart. This situation may create a real need for revising the chart to shorten it or for organizing the information on one or more additional charts. Here is another desirable situation for getting across the idea that each chart should be built around *one central* idea.

During the process of guiding the children in the composition of the chart, the teacher should keep these points in mind. First, the discussion should be directed to promote *interest.* Each child should be encouraged to contribute. Pupil participation is encouraged in situations where a number of titles are being evaluated, beginning and ending sentences are being appraised, the sequence of events is being established, the most interesting way of expressing an idea is under consideration, and illustrations are planned and evaluated. The guiding questions of the teacher should stimulate a variety of answers and many considered appraisals of the contributions.

Every-pupil Participation. When a five- or six-line narrative-type experience record is being developed, not every child in a group of eight to fifteen may have the opportunity to contribute a sentence. Furthermore, some pupils may be reticent about offering their contribution for several days or maybe several weeks. Spontaneity may be encouraged by asking certain children what should be told next or by calling for revisions of suggested titles or sentences. For example, the teacher may ask: "What will we want to tell about our experiment? What shall we say first? Charles, what do you think our next sentence should tell about? Mary, do you want the next sentence to tell about the color of the rabbit or what he did? Who can think of the word we should use? Henry, does this sentence tell enough about Jocko? Sam, do you like Susan's sentence?" And so on. By recognizing contributions —both great and small—and by quietly drawing out the reticent, the teacher may encourage every-pupil participation. Proper grouping is also a factor in the situation.

One of the ways to promote interest is to make every minute lively and worth while. Long-drawn-out discussions and

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Preliminary Draft. The preliminary draft of an experience record is usually made on the blackboard. Since the central purpose for developing an experience record is the *co-operative* organization of information for future reference, the teacher plays a major role in guiding the suggestions, considerations, evaluations, and revisions. Every-pupil participation is essential. The common center of attention should be the blackboard where the business at hand is being recorded by the teacher.

During the preliminary discussion, the children should have identified the central idea of the chart. If this has not been done, then the children may agree upon the main idea and dictate the title of the record. The title should be a short phrase to point up the experience, expressing the central idea. There may be sound pedagogical reasons for agreeing upon the title for the record after the composition has been prepared.

Before the preliminary draft is completed, the pupils may discover that they have too much material for one chart. This situation may create a real need for revising the chart to shorten it or for organizing the information on one or more additional charts. Here is another desirable situation for getting across the idea that each chart should be built around *one* central idea.

During the process of guiding the children in the composition of the chart, the teacher should keep these points in mind: First, the discussion should be directed to promote *interest*. Each child should be encouraged to contribute. Pupil participation is encouraged in situations where a number of titles are being evaluated, beginning and ending sentences are being appraised, the sequence of events is being established, the most interesting way of expressing an idea is under consideration, and illustrations are planned and evaluated. The guiding questions of the teacher should stimulate a variety of answers and many considered appraisals of the contributions.

Every-pupil Participation When a five- or six-line narrative-type experience record is being developed, not every child in a group of eight to fifteen may have the opportunity to contribute a sentence. Furthermore, some pupils may be reticent about offering their contribution for several days or maybe several weeks. Spontaneity may be encouraged by asking certain children what should be told next or by calling for revisions of suggested titles or sentences. For example, the teacher may ask: "What will we want to tell about our experiment? What shall we say first? Charles, what do you think our next sentence should tell about? Mary, do you want the next sentence to tell about the color of the rabbit or what he did? Who can think of the word we should use? Henry, does this sentence tell enough about Jocko? Sam, do you like Susan's sentence?" And so on. By recognizing contributions—both great and small—and by quietly drawing out the reticent, the teacher may encourage every-pupil participation. Proper grouping is also a factor in the situation.

One of the ways to promote interest is to make every minute lively and worth while. Long-drawn-out discussions and

prolonged periods for chart development contribute to unrest and disinterest. Without undue haste, the teacher should guide the discussion so that contributions are to the point and suggestions are evaluated in terms of the ideas the children wish to express. The experience approach is the interest approach only so long as the interest of each individual in the group is maintained at a high level

The length of a narrative-type experience record depends upon the previous experience of the pupils with this type of activity and their general level of language maturity For beginners, five or six sentences is an optimum length.

Second, the discussion should be directed to give the composition *unity* This can be achieved by guiding questions and statements of the organizational type such as "Who can give us a *sentence* to tell us where we visited? Is this sentence a good way to begin our story? Now we

need a good *sentence* to tell what we saw. John, how would you like to tell what the guinea pig did when he saw us?" A final appraisal of the unity is made after the preliminary draft and before transferring the content from the blackboard to the chart.

Third, the composition should make clear the *sequence* of events. By a careful evaluation of sentence sequence by the pupils, the unity of the composition is enhanced, a feeling for sentences (i e., sentence sense) is fostered, and a beginning is made on the development of the ability to write well-knit paragraphs

Fourth, the composition should be *readable* for the group in question Since elementary-school children vary widely in readiness for reading and in reading achievement, they usually are grouped for this type of activity Slow learners and otherwise immature pupils will be helped by vocabulary repetition that is fairly obvious For example, using the

PLENTY OF WORK TO DO

Helen Ballet   *Camas, Wash*

same words in sentence beginnings calls attention to their likeness. More mature first-grade entrants and pupils at higher-grade levels should not have their style so cramped by vocabulary repetition. An experience record is developed by the children and for the children; hence it should be readable, and usable, for the group in question.

Vocabulary load is one factor in readability; sentence length is another. For beginners, it is just as important to use one-line sentences in experience records as it is in basal readers. Later, when a two-line sentence is used, phrases should not be broken. For example, if it is necessary to use a two-line sentence, the whole phrase "to Mary's home" should be carried over to the second line.

Fifth, the language used should be *childlike*. The teacher who is a proficient linguist or who may be compensating for a lack of language facility may be inclined to *dictate* the composition rather than to *guide* the pupils in the development of it. Spontaneity of expression should be encouraged so that one of the major values of an experience record may be realized; namely, the development of language facility on the part of the children.

In the preliminary draft recorded on the blackboard, too much emphasis can be placed on a polished product. Of course, attention is given to the way ideas are expressed during the preparation of the preliminary draft but this serves the purpose of enlisting group co-operation. Even the preliminary draft should represent the ideas of the group. This *group composition removes the* revision from possibility of hurting the feelings of individual contributors. However, the language used in the composition should represent that used by the children, perhaps somewhat improved as a result of having engaged in the activity.

The following is an abbreviated account of how the preliminary draft of one experience record was developed:

Teacher We learned something new this morning, didn't we? How many of you had seen a frog before? Had you ever seen frogs' eggs?

At this point there were many enthusiastic comments about previous experiences with water animals, especially frogs. Most of the children, however, had not seen frogs' eggs. Comments and accounts were intermingled with questions beyond those raised before taking the trip to the pond.

Teacher Would it be fun to make up a story about our trip for our book?

Alice Yes, then we can read it for our program next week!

The lively comments of the children left no doubt in the teacher's mind regarding their interest in the proposed enterprise.

Teacher How shall we write our story?

Bob You write the story on the blackboard and we'll make up the words I guess we'll need your help.

Teacher All right. What shall we call our story? We ought to have a good title for it. What will our story be about?

Jim Let's call it *The Pond*.

Susan We saw lots of frogs—we might call it *Our Frogs*.

Edith We want to know how frogs come out of the eggs we got. Let's call it *Our Frogs' Eggs*.

After a brief consideration, the group agreed on the title *Our Frogs' Eggs*. And so the title was recorded on the blackboard in capital letters. The children eagerly watched each word as it was spelled out in large letters.

Teacher We had fun so we want this to be an interesting story. What will we want to tell about our frogs' eggs?

Billy How we happened to get them.

Susan What they look like.

Mary What we did with some of them.

Teacher Yes. All of those things would be interesting. What shall we say first?

Alice We went to the pond.

Edith Yes, that is what we did first.

Teacher Good I'll write that *sentence* on the

blackboard first It will make a good begin-
ning *sentence*

Now, we need a good sentence to tell what
we saw or heard at the pond

Jim We saw some frogs

Bob No, we heard them first so our next
sentence should be "We heard frogs"

Charles Yes, I think Bob's sentence should
be next

Teacher All right I'll write that sentence
next

Now, we have two good sentences Beverly,
what do you think our next sentence should
tell about?

Beverly Well, we saw the frogs and we
found their eggs We didn't know they were
frogs' eggs

Teacher Beverly, do you want the next
sentence to tell about the frogs or about their
eggs?

Beverly I think we ought to tell about what
the frogs did When they saw us, they jumped
in the pond

Bob I think we ought to say "The frogs
jumped"

Teacher We will write Bob's sentence on
the board Does this sentence tell enough?

Margaret We might say they jumped in the
pond

Teacher Margaret, how do you want to
tell what the frogs did?

Margaret The frogs jumped in the pond

Teacher Then we'll add to the third sen-
tence What did we say our story would tell
about?

After a brief discussion, the group
agreed that the next sentence should tell
about the frogs' eggs

Teacher What did the frogs' eggs look like?
That might be interesting to tell

Alice They were black specks

Jim The black specks were in a white jelly

Susan They looked like shaky balls

Teacher Edith, will you give us a sentence
to tell what the frogs' eggs were like?

Edith They were black specks in shaky
balls

Billy But we haven't told about seeing
them yet

Teacher Billy, you give us a sentence that
will tell what we saw

Billy We saw some black specks in shaky
balls

Teacher How many like Billy's sentence?
Good Then we will write that sentence next

We have told what we saw but we haven't
named them Who wants to make a sentence
to tell what they were?

Susan We can just say, "They were frogs'
eggs"

Charles That is all we need to say.

Teacher That is a good sentence (Writes
it on the board) Do all of us like the sentence?

Now, who can give us a good sentence to
tell what we did with some of the frogs' eggs?

Margaret We brought them to school

Mary Yes, but we didn't bring all of them

Susan We brought some eggs to school

Teacher Do we like Susan's sentence? Good.
We will write it

Now we have six sentences in our story.
Will this last sentence be a good one to end
our story?

Billy I think we have told our story

Jim But I think we might tell what we are
going to do with the eggs

Mary Yes, we put them in our aquarium
We haven't any fish now, so we can watch
them hatch

Teacher Who will give us a good ending
sentence to tell what we are going to do?

Bob We will watch them hatch

Teacher That is a good suggestion We will
write this last sentence Is this the way we
want to end our story?

Now I will read the story to you First, I
must read the title at the top of the story

OUR FROGS' EGGS

We went to the pond
We heard frogs
The frogs jumped into the pond
We saw some black specks in shaky balls
They were frogs' eggs
We brought some eggs to school
We will watch them hatch

Teacher How many sentences are in our
story? Yes, there are seven sentences To-
night, I will print our story on a chart so we
can use it

Editing and Final Revision

The editing
and final revision of the story may be
achieved during the initial development
of a record There are occasions, how-
ever, when additional values may be
gained by reviewing a record before
transferring it from the blackboard to
some more permanent form The final
editing should be directed toward these

ends: First, insuring unity in the composition. The title, sentence sequence, and beginning and ending sentences should be evaluated for their contribution to the central idea. Second, insuring literary quality. Sentences may be revised to increase interest value. For example, in one record, the pupils merely expressed their ideas of a pet chick's appetite in this sentence: He ate. A revised sentence expressed the idea better when written this way: He ate and ate and ate. Third, insuring readability. This may require a simplified vocabulary, more repetition of vocabulary, shorter sentences, and perhaps a shortened story. Final efforts at revision should increase pupil appreciation for things well said and improve language facility. Furthermore, revision provides worth-while opportunities for rereading.

Preparation of Illustrations. During the development of a preliminary draft of an experience record or immediately following, some consideration should be given to the desirability of making it more interesting and readable through illustrations. Illustrated records provide initial instruction in the use of picture clues by demonstrating the value of illustrations in making ideas clear.

In general, illustrations for experience records are of two types: pictures or the creative *efforts of the pupils* The type of illustration used for a given record will depend on the maturity of the pupils and the content of the record. Most records are illustrated with the creative efforts of the pupils. However, photographs of the steps in an excursion and pictures cut from magazines, newspapers, calendars, and catalogues make worth-while illustrations

By and large, illustrations should be developed as a result of group planning. The preparation of the illustrations may be group or individual enterprises. In so far as possible, the illustrations should be pupil productions.

Class evaluation of illustrations should be guided by carefully thought through criteria, or standards. First, the illustration should make the chart attractive. Illustrations should be colorful and bright. If the illustration is not drawn on the chart paper, an appropriate backing should bring out the color. Second, the illustration should be characterized by proper relative proportion. Third, the illustration should reflect a sense of balance. The decoration is used not only to enhance the value of the record but also to develop skills and abilities in art.

In the final preparation of narrative-type charts, space should be provided at the top for illustrations. Occasionally, the attractiveness of a chart may be improved by appropriate illustrations below the composition.

Booklets—groups or individual—are one type of experience record that offers many opportunities for illustration. Special attention should be given to the outside covers. Full pages may be set aside for illustrations within the booklets.

Construction Problems. The last step in the development of an experience record is that of putting it in final form for use. At this point the first question is, "Who should prepare the final chart?" A basic consideration is that the children should contribute as much as possible to the total experience. Children are far more interested in what *they* have achieved than in what the teacher does. Individual booklets are, of course, one hundred per cent child-prepared. Display charts may be labeled by the children or some one child designated by the group. In so far as the children have the necessary skills, the final chart should be theirs. However, there are many occasions when the teacher should prepare the final chart, especially when it is likely to be used as basal instructional material at lower-grade levels Children in the upper-elementary grades should be encouraged to do all of the work on their experience records.

1. *Writing Form.* Final charts may be written with manuscript letters, typewritten with suitable type, or printed

ROYAL GREAT PRIMER TYPE

Large size and maximum legibility make this type the choice for speakers and sight conservation classes.

1 2 3 4 5 6 7 8 9 0

LARGE MODERN PICA

This face makes the distinctive and exclusive features of Royal's Modern Pica available in enlarged size.   1234567890

ROYAL AMPLITYPE

The most legible of all typefaces. For labels tags, Sight Conservation classes, etc. 1234567

with a rubber-stamp outfit. In the kindergarten and primary grades, manuscript writing is used generally. Typewriters are found throughout the elementary grades in modern schools. Rubber-stamp outfits, with letters approximately one inch in height, are standard equipment in many schools.

A standard manuscript form should be used. The small, or lower case, letters should be one half to two thirds the height of the capital, or upper case, letters, which are usually one to two inches high. The writing should be legible, uniform, and neat. Large letters with bold vertical lines (at least one-eighth inch wide) facilitate visual discrimination between word forms. Penciled guide lines, which can be erased after the chart is finished, facilitate planning.

The following references may be useful guides for the teacher:

Conrad, Edith Underwood. *Show Me How to Write.* (Teacher's Guide and Books One and Two.) New York: The A. N. Palmer Co., 1936.

Freeman, Frank N. *Manuscript Writing* (Text and Materials for Teachers and Pupils). Columbus, Ohio: The Zaner-Bloser Company.

Lettering is done with a large dark crayon or a special lettering pen and India ink. Sometimes the letters are cut from paper of a color which contrasts sharply with the background. At all times, the color of the letters should be in sharp contrast with the background in order to increase legibility. A rich black crayon or India ink on white paper meets hygiene requirements.

The manuscript writing may be done with a broad letter pen, about one eighth of an inch wide, or with a fountain-type brush with a felt wick for a point. These may be purchased from most school supply houses. (The Cado Fountbrush is distributed by Cushman and Denison Mfg. Co., Inc., 625 Eighth Ave., New York, New York.)

Typewriters developed especially for school use have proved to be a boon for both teachers and pupils. For kindergarten and primary-grade rooms and for sight-saving classrooms, the type should be large. Various sizes of large type are called amplitype, large modern pica, great primer, sight saver, sight ease, large primer, magna type, and medium roman. Most of these names are trade names adopted by large manufacturers.

The three samples of type illustrated were supplied by the Royal Typewriter Company, Incorporated.

The sizes of type illustrated usually are available on both portable and standard model typewriters. The writer recommends the use of the standard model rather than a portable for classroom use. Typewriters are also available in both noiseless and standard machines. Some of the early model noiseless machines were not entirely satisfactory for cutting stencils, but a noiseless machine will have an advantage in a classroom situation.

Care should be exercised in determining the size of carriage for the typewriter. Standard models of carriages usually are made 11, 12, 14, 18, 20, 26, and 32 inches wide.

Information regarding typewriters for classroom use may be obtained from the following addresses:

Remington Rand, Inc.
465 Washington Street
Buffalo, New York

Royal Typewriter Company, Inc.
2 Park Avenue
New York, New York

L. C. Smith and Corona Typewriters, Inc.
701 East Washington Street
Syracuse, New York

A rubber-stamp sign printing outfit may be obtained from most school supply houses. Letters seven eighths of an inch high are standard equipment. Both capital and small letters should be used to approximate the appearance of type

in a book. The mountings for the letters serve as a guide for the spacing between the letters of a word. Here again, letters of a word should be close enough together to give the appearance of unity. To separate the words, a space of as much as two inches is desirable. A wooden liner or yardstick should be used to guide the printer. The finished product should be legible, neat, and attractive.

2. *Width of Lettering Lines* To aid visual perception, the final product on the blackboard and on the chart should give each word a clear-cut unity. The lines used for each letter should be about one eighth of an inch wide. It is better to err in the direction of too wide a line than too thin a line.

3. *Spacing.* The space between words —usually about twice the width of a letter, or for beginners at least one inch —should be sufficient to separate the words clearly, but should not be so great that the words appear to stand out in isolation. Likewise, each word should appear as a unit, without too much space between the letters. The spacing between lines should be uniform, usually three inches (i.e., between the guide lines) for beginners and somewhat less for more mature pupils. All such items contribute to the formation of efficient eye movements.

4. *Margins* The margins should be wide enough to give the chart the effect of good balance. For a typical narrative-type chart, the right-hand margin is usually about two or three inches wide. Since the sentences should be kept about the same length, the right-hand margins should be even and uncrowded.

5. *Capitalization* Only the first word in each sentence should be capitalized, otherwise, the pupil may be confused with later "book" reading. The title should be placed in the center of the sheet and about three inches above the opening sentence. With the exceptions of articles and connectives (such as *and*, *with*, *of*, and *a*) used within the title, the first letter of each word should be capitalized.

6. *Punctuation.* The teacher of beginning reading should be ever mindful of her responsibility for laying the foundations of written composition as well as for facilitating the development of reading comprehension. In view of this, attention should be given to end punctuation for sentences (period and question mark), to quotation marks, and to the proper use of the apostrophe to show possession. There should be no end punctuation for titles.

USES OF EXPERIENCE RECORDS

Experience records may be employed to serve the following purposes

1 To develop readiness for systematic reading instruction

2 To prepare pupils for the first book of a basal series of readers (I or transition from reading-readiness activities to textbook reading)

3 To develop initial reading skills and abilities as a basis for an experience-reading program

4 To prepare pupils for a unit of selections—story or expositional—in a basal textbook at all grade levels

5 To assist pupils in summarizing, or unifying, their experiences with a unit of activity in a basal textbook

6 To develop writing skills and abilities in class and group situations

From the above list of purposes, it is clear that experience records may be used (1) to develop certain aspects of reading readiness, (2) to develop skills and abilities basic to "book" reading, and (3) to complement instruction in basal readers So far as systematic instruction in reading is concerned, experience records may be used to precede and/or to complement basal-reader instruction, or they may be used as one part of a broad experience approach to reading in the elementary schools (See chapters on Directed Reading Activities and Developing Basic Reading Abilities)

Experience records are quite generally used by competent teachers in the kindergarten and primary grades as a means of developing language readiness for reading and of initiating the beginner into the intricacies of reading. Initial reading activities usually lead to book reading, among other types of reading. So the use of experience records with pupils who have achieved initial skills, abilities, and attitudes depends to some degree upon the emphasis given to the use of basal readers. Certainly the use of experience records should not be discontinued when the children begin book reading, whether the first book is a pre-primer, primer, or trade book.

It is important to remember that one of the values of experience records has been realized when the final draft has been completed. In the first place, pupils have learned something about co-operation: to share ideas, to evaluate and revise the way ideas are expressed. Second, they have learned that printed words and sentences are another form of language. Third, they have learned that words represent experience. Fourth, they have learned to express ideas more clearly. Fifth, they have learned that records are an important heritage. Sixth, they have learned to be better observers of words; that is, their visual discrimination and perception have been improved. Even though the pupils have been carefully grouped for the activity, their learnings will not be equal.

In a letter to a member of the Reading Clinic Staff of the Pennsylvania State College, Mrs. Marjorie L. Park described her endeavors to use an experience approach to initial reading instruction in a rural-school situation:

We developed lovely experience charts this year in grade one. The only real pets which were brought in to write about were a dog and a kitten, but the children brought in toys galore: dolls, teddy-bears, jeeps, trucks, tanks, bicycles, etc. They had a lot of fun drawing the pictures to be placed on the charts. Until they got enough muscle control preparatory

to manipulating a pencil in drawing, they colored and cut carboned copies of pictures from which we developed several stories

I was careful to ask questions in a way that would necessitate the children's answering, largely, in the vocabulary of the first-grade series of readers When they had been exposed to the total vocabulary of the pre-primers, primer, and first reader plus as many other words as we needed to tell our stories interestingly, they had command of many *more than seventy words at sight.* It took wall paper by the roll as I duplicated every copy, the latter of which was cut into sentence strips and later into phrase and word cards for matching

Situations and Purposes for Rereading.
Other things being equal, records are used in a modern educational program only in so far as they grow out of and contribute to the interpretation of experiences. In the preceding discussion, emphasis has been given to the development of experience records for the purpose of satisfying individual, group, or class needs. Emphasis should also be given to the role of purpose in the effective rereading of records Attention, therefore, is directed to the following list of situations and purposes for rereading:

I. To review a preliminary draft before transferring to a permanent chart

II. To review a preliminary or final draft in order to evaluate proposed illustrations

III. To review the story in final chart form

IV. To rebuild the story in the chart holder from sentence strips

V. To rebuild the story in the chart holder from word and phrase cards

VI. To paste *sentence strips* of a typed reproduction of the record in the proper sequence in an individual booklet

VII. To report to the group or the class a record of research or of a creative activity produced by an individual pupil

VIII. To present information to another group or to visitors

IX. To review *reminders and rules for* appraising a given situation

A To appraise conduct on an excursion

B To evaluate independence of work habits

C To appraise good speech habits

D. To check on responsibilities assumed by individuals or committees

X To evaluate progress

A To find out how many questions were answered by an excursion or other activity

B. To determine how many steps have been completed in a construction project

XI To reread rhymes, jingles, riddles, songs, and stories for pleasure

XII. To reread a chart to identify a given word in another record

Outcomes. The use of the experience approach to initial reading instruction produces certain outcomes which will be listed herewith. At no time, however, should these outcomes be interpreted as requirements for all pupils The wide range of capacities, achievements, and needs within a class precludes that possibility.

1 Attitudes of Approach Desirable attitudes toward reading are developed Pupils learn that words stand for things within their experience and interest in reading is developed Furthermore, they see how reading may be used as one aid to learning

2. Vocabulary A basic reading vocabulary may be developed which contributes to initial success with book reading The child learns to recognize words by systematic guidance in the use of context clues, picture clues, configuration clues, and language rhythm clues

3 Sentence Sense A feeling for the unity of sentences is developed The child has learned that a sentence begins with a capital letter and is terminated with some kind of end punctuation This sentence sense is essential to efficient reading and effective writing

4 Composition Unity By developing and revising records, the child has acquired a feeling for sentence sequence. Further consideration of titles for records has developed basic notions about getting central themes, or main ideas.

5 Left-to-right Progression. By participating in the development of the records and by reading and rereading them, the child should have acquired the habit of viewing words in a left-to-right progression This holds true not only for the left-to-right reading of sentences but also for left-to-right word attack.

Individual Records. When a number of narrative-type charts or some similar type of record have been developed around one center of group or class interest, the teacher sometimes encourages each pupil to prepare an illustrated booklet. The materials for these booklets are taken from the large charts. The teacher reproduces them by means of a hectograph, ditto, or mimeograph. Manuscript writing or a typewriter with primer-size type is used to make the stencils.

This *individual use* of experience records has at least two major values. In the first place, the children usually try out their reading skills immediately with eagerness and delight. They can read a book! Secondly, most pupils will wish to take the booklets home to read to their parents When this is done, the teacher should make sure that the children can really read them. Individual pupil practice of this type give the children practice in reading a size of type that more nearly approximates that found in their first books

Group Activities. Generally speaking, experience records are used in two different ways to develop initial reading skills and abilities. In an outright experience approach, many records are developed and used in connection with everyday activities Vocabulary repetition and sentence structure are controlled reasonably well to develop over a period of time the necessary skills and abilities for book reading. In a modified experience approach, a few charts are de-

Dog Show Today

veloped for use as basal reading material. Duplicate charts are made to provide the necessary sentence strips, phrase cards, and word cards for matching activities to promote word recognition. Additional materials are duplicated for seatwork activities. The practices of teachers appear to vary between these two extremes

1. The All-out Experience Approach In the all-out experience approach, the teacher assumes that children will learn to read as they learned to talk if they meet with a basic vocabulary in a sufficient number of different situations. She also points out that sheer drill on a given chart until it is memorized does not promote an interest in reading and does not speed up the development of a reading vocabulary. Master teachers have used a highly functional approach very successfully.

2. The Modified Experience Approach. Most teachers probably use some type of modified experience approach to initial reading instruction. Their aim is to prepare the pupils for the reading of a preprimer or primer of a given series of readers in as short a time as possible. While this

objective is not achieved with all pupils because of differences in reading aptitude, nevertheless this objective is usually in mind.

In a very critical review of "The Current-Experience Method in Beginning Reading," Dr. Clarence Stone declared that the experience approach contributed to reading retardation On this point he presented no data However, he did make a damaging attack on the way in which experience records sometimes are used to produce word learning and undesirable memorization He stated that (47, p 107):

> some teachers have the children do a great deal of matching of word and phrase cards to the words and phrases in the chart unit, following the technique of the nursery-rhyme and folk-tale method, and they give isolated practice on word recognition These supplementary devices are, of course, in violation of the theory of the experience method

In a modified experience approach, the teacher takes the children through four steps First, a number of charts—perhaps five or six—are developed and displayed in various parts of the room Through many experiences with each of the charts, the children gradually learn to distinguish, for example, the one about the trip to the farm from the others During the second step, the attention of the pupils is directed to what each sentence tells about The children learn to match the first sentence on a chart with the same sentence on one or two duplicates This type of activity leads to independent reading of the sentences The third step calls attention to phrases This is done by calling attention to phrases within the sentence and by cutting a duplicate chart into phrases for matching activities. During the fourth step, the activities center around word discrimination. A second duplicate chart is cut into word cards for this purpose. It will be noted that the word and phrase cards are cut from sentences which the child can see as a whole on the original chart

The fourth step is terminated with the reconstruction of the chart in a chart holder, using the word cards.

After the development of a reading-type record, the preparation of the final chart and its duplicate should be made as soon as possible to maintain interest. The teacher then proceeds to call attention to the story developed in the preceding period. First, she may call attention orally to the title by asking, "Do you remember what the story was about?" Then attention is directed to the new chart by saying, "Here is a story for you to read." Usually several children will identify the chart story as the same one developed on the blackboard They will also note that it is different from other charts in the room The introduction of the chart is concluded with a discussion of what the title tells Following this, the story is read by the pupils The teacher begins by placing a ruler or oak-tag liner under the first sentence and saying, "This sentence tells where we went. John, you may read it." The next sentence may be read in like manner, with the teacher directing it somewhat this way "This sentence tells what the frogs did when we came. Who will read it?" This type of activity constitutes the first reading of the final chart

In another situation, the teacher may present the final chart this way "Here is a good story Have you seen it before? Good This is the story we wrote yesterday I will read it for you " This story is read by using a pointer or ruler to call attention to each sentence Following this reading, some of the children may be given an opportunity to try reading the whole story Before anyone reads orally, the teacher encourages silent reading first by a direction such as, "Let's see if we can read the whole story to ourselves" The teacher then guides the silent reading by moving the pointer under each sentence After a few have been successful with this activity, attention is directed to what each sentence tells

Duplicate charts are usually printed on oak tag or similar material to facilitate their being cut into sentence strips, phrase cards, and word cards. A strip three or four inches wide and about twenty-seven to thirty inches long will accommodate sentences from reading-type charts. The second type of activity in which the chart is reread involves the use of sentence strips. The teacher usually begins the activity by telling the children they may play a game with their story. Then they are told that it will be a matching game. The teacher may ask, "Who can put this sentence [holding up a strip with the first sentence] right under [or over] a sentence in our story?" The child who matches the two sentences also reads the sentence.

A modification of this sentence-matching technique is used sometimes by reconstructing the story in the chart holder from sentence strips. One pupil reads the title and the teacher cuts it from a duplicate chart for the pupil to arrange at the top of the chart holder. Each sentence is then cut from the duplicate chart, matched with the same sentence on the original chart, read by a child, and put in its appropriate place in the chart holder.

These activities may be followed up by having the pupils frame given sentences with their hands. The teacher may direct the activity by asking, "Who can find the sentence that tells what we did with the frogs' eggs? All right, John, you show us which one it is. Is that right, Mary? Good. John, what does the sentence tell?"

Regardless of which procedure is used to develop sentence-discrimination ability, the story usually is reread as a whole. As was true of the preceding activities, *the pupils read silently before attempting to read orally.*

After sentence discrimination has been developed somewhat, the teacher introduces words and phrases taken from the story. Usually these words are *selected* for their value as a basic-reading vocabulary.

The teacher may introduce the words something like this: "Here are some words we used in our story. Would you like to find out if you can remember them? If you know what this one is, raise your hand." When a word is unknown, the child in question should be encouraged to match the word with the one on the chart and to identify it from the sentence. Sometimes this procedure is varied by asking a pupil to find the word in the chart and read the whole sentence rather than saying the isolated word.

Too much drill of the type described above will kill interest in experience records and in reading. It will be observed that the activities may deteriorate into a sheer mechanical and uninteresting drill process.

Teachers using the modified experience approach observe at least six principles. First, only that vocabulary which is basic to the reading of the first book is developed. The pupils are not expected to recognize every word on the chart. Usually, the teacher keeps a record of the range of vocabulary and the repetitions. Second, the reading of the story is always done in sequence. This is done to promote reading for meaning. Third, the several uses of a word are developed in different types of contexts. This is done to avoid mere mechanical repetition. Fourth, visual discrimination between word forms is developed as a basis for word-recognition skills. Fifth, sufficient repetition of vocabulary is provided to insure retention by those pupils who appear to make progress. Sixth, by using a pointer or the hand, the teacher constantly demonstrates left-to-right progression. In addition, attention is called directly to this progression.

Display of Records. Final charts should be displayed at eye-level height. Since bulletin boards usually are viewed from a standing position, the records may be placed higher than when used for reading activities. A chart used for group instruction should be placed low enough to give

The Yonkers firemen.

We went to the fire house.
We saw the firemen.

A house is on fire.
The engines come.

The firemen put out the
The firemen are bra

Oh! see the fireman
He come down the pole

The firemen put up the ladders.
They are high ladders.

Here is a fire boa
This boat has a lon

WORDS REPRESENT EXPERIENCE

Bertha Smith   *Yonkers, N.Y.*

When experience records are read and reread day after day for no other purpose than to provide repetition, then the central idea of the experience approach is missed. Repetition *ad nauseam* does develop attitudes attitudes of withdrawal rather than of approach. Sheer drill for the purpose of memorization probably never produced a good reader.

To make maximum use of the experience approach, many experiences with a variety of records are necessary for initial reading activities. Too many "experiences" with the same old dogeared records are likely to result in blind memorization. Reading has been best described as the reconstruction of the facts behind the symbols. If the facts have been reconstructed once, the record may have no further value. On the other hand, if there are honest-to-goodness occasions for rereading, then it will be necessary to again reconstruct the facts behind the symbols.

Basic Considerations. The following suggestions should merit consideration in the use of experience records:

1. *Word Learning.* The average beginner will not be able to learn and to remember more than four to six new words each day. Even a well-made six-line chart may contain as many as thirty-five running words and twenty different words. When varied and richer experiences are recorded, the vocabulary is extended. As a result, no emphasis should be placed

on the learning of every word in a given record.

2. Repetition. It is more important for the group to develop new records than to review endlessly an old record. Otherwise, recreative is narrow and the values of the approach are not achieved.

How often a narrative-type chart may be reread with profit will depend upon how much of a "kick" the children get out of it If the pupils chuckle over a sparkle of humor or are inspired by the imagination of it, then recreatory needs are satisfied

3. Differentiated Purposes of Narrative Records. Records of this type may be used to develop language readiness for reading, to develop initial—or prebook—reading skills, and to develop general language skills throughout the elementary school The use made of a record will depend on the purpose it is to serve.

When experience records are developed as a part of a reading-readiness program, it is unnecessary to exercise rigid control over vocabulary and sentence structure. As in the use of records for all purposes, the emphasis should be on meaning. In addition, language-readiness records may be used to improve visual discrimination, to foster left-to-right observations, to promote an understanding of the relationship between visual symbols and experience, to develop an attitude of approach to reading, and so on.

When experience records are used to develop initial reading skills, abilities, and attitudes, systematic attention must be given to the development of a vocabulary for book reading, and to sentence structure, punctuation, and other linguistic elements. As the pupils evidence more and more readiness for initial reading instruction, a gradual transition from language-readiness records to reading records is made However, there will be many occasions throughout the elementary school for the continued use of experience records for the fostering of general language skills and abilities. The use of experience records for initial reading activities requires attention to the development of independent and versatile word-perception skills, of left-to-right line attack and word attack, of accurate return sweeps, of purposeful reading habits, and of kindred items. This use of experience records requires not only the systematic development of them in terms of interests, vocabulary, and sentence structure, but also systematic reading, rereading, and following up to insure gradual growth in the reading facet of language.

When experience records are used for the third purpose of continuing general language development throughout the elementary-school career of the child, emphasis should be given to the development of higher-level skills, abilities, and attitudes. Some of these specifics include sentence sense, sentence structure, punctuation, organization of main ideas and details, unity, coherence, and correct usage of words and language forms, such as letter writing, invitations, and outlines.

From this discussion, it should be clear that a differentiated use of experience records is essential to effective learning The teacher must be articulate regarding the objectives to be achieved by means of a given activity. Fuzzy thinking on the part of the teacher will be reflected in pupil attitudes. All learners want to be going somewhere in particular.

4 Silent Reading Before Oral. One of the basic principles of reading instruction is that silent reading should precede oral reading This gives the child an opportunity to preview the selection to get an over-all view of it and to identify any unknown words

5 Large-size Type. Advantage should be taken of the large size letters on both group charts and individual records Children with various types of vision problems are aided by legible reading materials printed in large type Opportunities should be provided also for trans-

ferring reading skills developed through the group reading of large charts to the reading of the smaller letters in individual records.

VALUES OF EXPERIENCE RECORDS

When experience records are used wisely for initial reading and follow-up activities, they contribute to desirable goals of instruction. Some of the values of experience records are summarized here.

Natural Order of Learning. In normal situations, learning proceeds from facts, or experience, to symbolization. The reverse order which produces verbalization is to proceed from language to experience. When words stand for, or represent, things in experience, comprehension results. When words represent things or interests foreign to the learner, comprehension is lowered toward the zero point. Hence, the use of experience records makes possible the natural order of learning; that is, from experience to language. In fact, experience records emphasize the relationship between language and experience.

Childlike Language. When the teacher guides the development of experience records by the pupils, the vocabulary and sentence structure of the final charts should be in tune with the oral language control of the pupils. This makes possible the by-passing of the stilted sentences and narrow vocabulary sometimes found in the preprimers of basal readers. It can be assumed that children may learn to read more readily when the materials of instruction are built in terms of the learner's experience and language patterns.

Broad Pupil Interests. One of the most potent factors in learning is interest. Experience records contribute to a community of interests in the group; therefore, they can be used to enlist pupil interests and to extend them.

Satisfaction of Pupil Needs. Before children are admitted to the first grade, they have learned to use oral language as a means of meeting personal needs. They learned *how* to talk *when* they had a need for communication. The use of experience records is one means of teaching the child the intricacies of *how* to read *when* he has needs to be satisfied thereby.

Skill in Organization. Among the many language skills and abilities to be developed is that of organization. Children need systematic guidance for the purpose of acquiring insight into the structure of language. One important aspect of language structure is the innerconnectedness of language. Children who are ready for systematic instruction in reading have acquired considerable control over simple, compound, and complex sentences. In regard to reading, their next learning is a further development of sentence sense for visual symbols. As this feeling for structurally complete sentences is developed, the relationship between sentences is sensed. In well-made experience records of more than one sentence, the pupils acquire a feeling for sentence sequence and for the relationship between the group of sentences and the title of the record. Hence, experience records can be used to foster the development of organization skills and abilities.

Informal Appraisal of Reading Readiness. While guiding the development of experience records in the kindergarten and primary grades, the teacher is in a position to make first-hand evaluations of individual readiness for systematic instruction in reading. Observations may be made regarding such factors as background of experience, oral language facility, social and emotional adjustments in group situations, and visual discrimination. An experienced teacher may rely heavily on these observations; an inexperienced teacher may wish to follow up evaluations with parts of standardized reading-readiness tests.

Parallel Reading Enrichment. The use of experience records is often combined with the basal-reader approach to reading instruction. As a means of summarizing "What we know," "What we want

to know," and "What we have learned," the experience records heighten interest in the reading of a grouping of stories in the basal readers. Experience records in the form of class-dictated summaries, movie strips, and the like, provide an excellent basis for follow-up activities in connection with a story or expositional selection

Transition from Oral Language to Printed Symbols. Many children admitted to the first grade are not ready for systematic instruction in reading. On the other hand, most first-grade entrants have acquired considerable control over oral language. In the kindergarten and primary grades, children vary widely in their language readiness for reading One of the chief values of the experience approach to initial reading instruction is the gradual transition from oral language to reading This approach, therefore, makes it possible for the teacher to capitalize fully on the child's previous experience with language.

Control over Reading Skills. When the basal-reader approach is used as a means of initial reading instruction, it is entirely too easy to fall into the rut of teaching reading as an end in itself rather than as a means to an end. When the experience approach is used effectively, children are taught *when* to use reading as a learning aid The pupils do not set out to learn to read, instead they learn to read as they learned to talk That is, they read to learn In consequence, they gradually acquire control over the necessary reading skills and abilities as they deal with their everyday problems. Reading becomes an integral part of the child's experience

Vertical Program of Language Development. Various types of group and class-dictated compositions are used in both elementary and secondary schools for instruction in English When not used to excess at any one grade level, experience records provide one substantial approach to the development of language skills and abilities

Legibility Well-made charts are made with large letters and with black ink that contrasts the black letters with the white background of the paper. These characteristics of a well-made chart reduce the visual task of reading and contribute to good hygiene

Reduced Near-point Reading. There are some data to substantiate the notion that excessive reading at close range—as required when reading a book—tends to induce near-sightedness and to interfere with the development of efficient two-eyed seeing habits. There is some reason to believe that young children, especially, should not be required to give sustained attention to near-point tasks Hence, the use of charts, printed in large type and read at a considerable distance (approximately five feet or more) have hygienic values.

Common Center of Attention. The development and use of experience records is a co-operative undertaking which provides a common center of interest. In addition to promoting social adjustment, the use of experience records makes it possible to develop certain basic reading skills and abilities under the direct guidance of the teacher. Some of the items are left-to-right progression, accurate return sweeps from the end of one line to the beginning of the next line, sentence sense, and visual discrimination.

Through a common center of interest, a variety of new and interesting materials is developed These attractive and meaningful materials contribute to the development of an attitude of approach to reading and to an understanding of when reading may be used profitably as a learning aid.

LIMITATIONS OF EXPERIENCE RECORDS

In this chapter, emphasis has been placed on the use of experience records for initial reading activities. For such purposes, they merit careful consideration. However, perspective is necessary in evaluating the use of experience rec-

MAKING FURNITURE

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ords as a means of initiating the child into the intricacies of reading, for the cure may be worse than the disease. Used wisely, experience records may develop attitudes of approach; used to excess or incorrectly, they may develop an antipathy for reading that may be reflected in attitudes of withdrawal. Many of the limitations of this approach grow out of misuses of experience records. Some of the limitations are briefly mentioned here.

Possibility of Memorization. The writer has worked with teachers in some classrooms where the pupils memorized the charts rather than read them. This is an ever-present pitfall to be avoided during initial reading instruction. Of course, memorization is just as possible when basal textbooks are used as it is when experience records are employed. The memorization of instructional material defeats the chief purpose of the reading program; namely, the development of attitudes toward the use of language.

Children who are led to believe they are reading when they repeat from memory the content of an experience record are denied a fundamental understanding; namely, that words and groups of words

stand for, or represent, experience. One of the surest ways to develop a remedial reading case is to encourage memorization. Memory "reading" is worse than no reading.

Uncontrolled Vocabulary. The child who is ready for systematic instruction in reading has a speaking vocabulary which exceeds the reading vocabulary he may achieve two or three years hence. Furthermore, the vocabulary required to deal with a given center of interest may embrace many words infrequently used. It will be seen, therefore, that the vocabulary employed in the development of a given experience record may not be serviceable for the child in his attempts to read "beginning" books. The teacher, then, must be skilled in guiding the children to develop a serviceable recognition vocabulary.

The average beginner will have his capacity taxed almost to the limit if he adds four to six new words to his reading vocabulary each day. This fact confronts the teacher with another crucial problem; namely, how to insure sufficient repetition of a basic vocabulary to guarantee retention.

The use of experience records does not

make it possible for the teacher to by-pass established principles of learning. In the first place, the basic vocabulary acquired by the child must be serviceable for reading beginning books. Secondly, sufficient repetition must be provided in meaningful situations to facilitate retention

Narrow Reading Programs. One of the goals of reading instruction is the extension of interests and the enrichment of experience. The experience approach—in the broadest use of the term—should contribute to the achievement of this goal However, there is always the danger of limiting reading experience to development and use of experience records. When use of immediate experience is overemphasized, the reading program is narrowed, pupils are denied rich experiences with picture books and "beginning"-reading materials, and the major goals of reading instruction are not attained Not all reading activities—even during initial instruction—should be limited to the everyday experiences of children

Questionable Quality of Material. Probably one of the most damaging criticisms aimed at some attempts to use the experience approach to reading instruction has been made by those who question the literary quality of experience records. Literary quality is impaired when the teacher has little knowledge of creative writing and when she lacks a feeling for the beauty of language While some control must be exercised over vocabulary repetition, this control may be carried to the point where the material looks like so many matches laid end to end; that is, it may be wooden Hence, the teacher must be sensitive to the desirability for building literary quality into the material

Poor Attitudes When experience records are used almost exclusively or are otherwise overemphasized, they foster attitudes of withdrawal from reading and writing situations For example, this story has been circulated for a number of years. A bus load of children was on an excursion. The teacher overheard a child with a speech defect give this advice to a classmate: "Don't wook! If you wook, you have to wite and if you wite, you have to wead!"

Poor attitudes also are developed—and the purposes of the experience approach are defeated—when the experience record is used only for drill purposes. A zealous teacher may be so concerned with vocabulary retention that she gives the child "experience" on word drill alone This, of course, misses the point of the *experience approach*

Overdependence on Context Clues. In beginning reading activities, the child acquires a stock of serviceable sight words through the use of context, picture, and configuration clues. When the principles basic to the experience approach are interpreted literally, there is always the danger of developing an overdependence in the use of context clues. This results in memorization and sheer guessing. Facile readers must be versatile and independent in word recognition.

Lack of Creative Reading. One of the criticisms often leveled at some attempts to use the experience approach is the failure to provide opportunities for creative and imaginative reading. When all of the reading activities are limited to the everyday experiences of children, the reading diet may have the necessary calories but it may lack the required vitamins Of course, narrative-type records are not the only ones used in the experience approach, as pointed out elsewhere in this chapter

Regimented Instruction Experience records usually are developed in class and small-group situations However, even in a small group, individual needs and rates of learning may be expected to vary widely because a truly homogeneous group is a fiction. Therefore, the use of experience records may be just another means of regimenting instruction.

The Time Factor. More often than not, the teacher transfers co-operatively de-

veloped material from the blackboard to the lettered charts. Even when instruction is regimented, a large quantity of material is required to meet the reading needs of children. Often, the teacher exhausts her energies by remaining long hours after school to complete the mechanical tasks of chart construction.

Overemphasis on Oral Reading. One of the basic principles of reading instruction is that silent reading should precede oral reading. When experience records are used, this principle is sometimes violated.

Demands upon the Teacher. Since experience records are developed from immediate activities and first-hand experiences of the pupils, the teacher must have a wealth of experience and preparation. She must be thoroughly familiar with techniques for the co-operative development of experience records She must be expert at appraising learner levels of achievement. She must have clearly in mind the differentiated goals of instruction. She must know how to insure systematic growth in vocabulary control and other firsts in reading without violating the principles and assumptions basic to this approach. In short, superior teachers are required to make the best possible use of this experience approach to reading instruction

Transition to Book Reading

Every child looks forward to the day when he will be able to read a book. And, too, so does the proud parent! Fortunately or unfortunately, children differ considerably in their readiness for initial reading instruction and in their readiness for book reading. Learning to read cannot be calendar dictated. In fact, specific goals cannot be established for first, second, or third grade. Some children may be ready for book reading in first grade; others, not until they are in the second or possibly the third grade. Learning to read covers the first two or three years of school. Second- and third-grade teachers must admit this fact and

govern their attitudes and actions accordingly!

There are lots of ways to tackle the job of beginning reading instruction. How it is done—even by the most competent teacher—depends upon a multiplicity of factors in the local situation. There are, however, certain basic principles of learning which must be observed in order to insure success.

One of the potent factors in the situation is an inspired teacher. The best procedures go "haywire" in the hands of a cold, uninspired, and unimaginative teacher. The teacher must really live with her pupils, love each day fully. Reading is a *process*, not a *subject;* it is a *social* tool to be developed in *social* situations. These social situations should be inspiring, enjoyable, pleasant, vital, and worth while; as a result each child should be raised to higher levels of emotional achievement. In life outside the school, hard-headed businessmen are as much concerned with how the individual gets along with others as they are with how skilled the individual is. Hence, personality development is the first objective of education.

Another *potent factor in the beginning-reading situation is books. Children need to be surrounded with all kinds of books*—textbooks, trade books, picture books, ten-cent-store books, encyclopedias, poetry books, story books, classics, folklore, science guide books, geography books. They need many interesting and "easy" books. *As the classroom revolves around the reading table, or library center, so the school is built around the building library.*

APPROACHES

"When should children begin book reading?" In general, the answer to this question is: as soon as, and not before, they are ready. Specifically, however, when the children are introduced to book reading depends upon the children, the professional competency of the teacher, the extent to which basal readers

are used, general administrative policies, and kindred factors.

In some schools, the children are taken directly from the basal reading-readiness book into the first preprimer of the series. A degree of success is achieved by this procedure when the children are grouped according to their readiness. In the best situations where this procedure is used, one preprimer group is formed within a few days after the children are admitted to the first grade. The other children are placed in reading-readiness groups. After a period of six to twelve weeks a second preprimer group may be organized. A third preprimer group is organized when the teacher has sufficient evidence to justify it. Of course, some children are not ready for reading until they are in the second and possibly the third grade.

In schools where a modified experience approach is used to initiate reading instruction, at least two possibilities are open. First, children are not introduced to book reading until they have control over the vocabulary of at least the first preprimer. This vocabulary is developed

through the use of experience records. Second, children are not introduced to book reading until they have control over the vocabulary of the preprimers and the first few units of the primer in the series. Undoubtedly, the best possible use of basal readers is made when a modified experience approach is used.

In schools where an all-out experience approach is used, the children are not introduced to book reading until a substantial vocabulary has been developed through the use of experience records. This vocabulary usually is equivalent to that used in preprimers and primers of a typical series of basal readers. In this type of situation, the first book may be a basal textbook for reading, science, or some other area, or it may be a trade book.

It will be noted that the trend is toward the development of a reasonable degree of independence before inducting the child into book reading. One of the chief virtues of "group" reading before "individual" reading is the careful supervision of habit formation. When large charts are used, the teacher may easily

"CURLEY-TAIL" EXTENDS THEIR VOCABULARY

demonstrate good reading habits and she may observe individual pupil progress in acquiring those habits.

READINESS

Generally speaking, readiness for book reading has been achieved when the following requirements have been met.

Interest. The child should be sufficiently motivated to wish to engage in book-reading activities.

Purpose. The foundation of interest is purpose; hence the child should have a good reason for reading. He may wish to enjoy a story or to secure some specific information.

Basic Vocabulary. Each child should have sufficient control over the basic vocabulary of the first book to insure success. While the child will have learned that the same word always has the same general configuration, he must learn during his initial experiences with a book that some of the letter details in print are somewhat different from those used in the manuscript writing on the charts.

Basic Skills, Abilities, and Attitudes. Each child should have control over such items as left-to-right progression, return sweeps, visual discrimination necessary for word recognition, and the notion that words represent experience

Children must be prepared for "book" reading. When the experience approach to initial reading instruction is used, this preparation is made through the use of experience records. When basal pre-primers are used, this preparation is made through the use of commercial or teacher-made charts which usually duplicate the first pages of the prepreimer. Preparation, then, is made in group situations where the teacher can appraise pupil achievement in such matters as word recognition, left-to-right progression, and accurate return sweeps from the end of one line to the beginning of the next. In brief, a specific readiness must be developed for individual reading in books.

SELECTION OF FIRST BOOK

In selecting the first book, the teacher should have in mind several criteria:

I. Is the book attractive?

A. Is the cover of the book inviting?

B Do the illustrations stimulate interest in the content?

C. Is the type large and clear?

II. Is the content interesting to children?

A. Are the concepts within the grasp of the pupils?

B Are the plots of the stories varied to stimulate interest?

C. Is there sufficient content to promote reading for meaning?

D Do the illustrations contribute to the content?

E. Do the illustrations provide pronunciation clues?

III. Is the material well written?

A. Does the material have literary quality?

B. Has the author based the content on studies of children's interests?

C. Is the language employed commensurate with that used by children? (Or are the sentences too short and is the vocabulary so limited that the child cannot read with his usual speech rhythm?)

D. Is there sufficient vocabulary repetition and sentence structure control to promote retention and rapid learning?

E. Will the vocabulary be serviceable in other reading activities?

F. Does the material provide rich and vital experiences?

INTRODUCING THE BOOK

How the first book is introduced depends somewhat upon the type of approach employed. In any event, however, the teacher should make the necessary preparation to insure enjoyment and to give the group a real thrill. It is, indeed, a red-letter day when the child reads his first book!

When the teacher has assured herself that certain children are ready for their first book, she may issue an invi-

tation to them to join a book-reading group the next day. This builds anticipation.

The First Preprimer. In situations where a basal series of readers is used, the first book is the first preprimer. Through chart-reading activities, the pupils have been acquainted with the characters; their appetites have been whetted; and they have gained a reasonable control over the vocabulary. Above all, they have been carefully selected for the book-reading group. They are ready to read their first book.

Before the books are distributed, interest is heightened by directing attention to the cover, the name, and the attractive illustrations. Then the children are given their first thrill of having a book in their own hands. First, the pupils are given an opportunity to examine the book and to exclaim over parts of interest. Second, the cover picture and title are discussed. Third, the title page is examined and the title is read. Fourth, the frontispiece is discussed along with the picture on the first page of reading. Fifth, the setting for the story is given and a general interest in reading the story is developed. Sixth, the first, or *silent,* reading of the story is directed by questions, suggestions, and comments. At all times, the general theme of the story is preserved. Each page is read one line at a time. Seventh, the page is re-read as a whole. This rereading may be done both silently and orally. Eighth, the framing of sentences, phrases, and words to answer certain questions is demonstrated and practiced briefly. Ninth, vocabulary difficulties are noted and used as a basis for follow-up activities. Tenth, the story reading is completed. When necessary, background is supplied to enhance appreciation, enjoyment, and comprehension. Through question and discussions, required concepts are developed. The importance of a highly satisfying and enjoyable experience with the reading of the first book cannot be overemphasized.

Succeeding activities with the first and subsequent books should be characterized by variety. Specific suggestions for using basal readers are given in the chapter on Directed Reading Activities. Important recommendations regarding initial book reading activities will be summarized at this point.

The *first basic principle* of a directed reading activity is *the pupils should be prepared for the reading of a given selection.* First, pupil backgrounds should be pointed up. When experiences are shared by pupils and teacher, background deficiencies may be detected and overcome. Relating pupil backgrounds to a specific selection stimulates interest and promotes reading for meaning. When a number of selections are grouped as a unit, preparation may be made for the total grouping of stories. Second, working concepts should be developed. This may be done through questions, discussions, the presentation of pictures, telling related stories, and the adding of necessary facts. Third, the selection under consideration should be related to previous selections. This may be done by retelling, rereading, or dramatizing preceding stories. Fourth, during the initial stages of book reading, word-recognition difficulties should be anticipated. The names of characters and special words which the children cannot get by previously developed techniques should be introduced in preparation for the reading. Even at this beginning level, the teacher *never* gives isolated drill on new words before they are met in context. During the reading-readiness development preceding the first reading, the teacher insures oral control over the vocabulary. Fifth, a general motive for reading the new selection is established. For example, the pupils may "guess" the action and conversation and read to find out what happened. All of these things are done before the first reading.

A *second principle* basic to a reading activity is this: *silent reading always precedes*

oral reading. This silent reading is guided by means of pupil and teacher questions, comments, and suggestions. The pupils should be guided to anticipate meaning, to identify the sequence of events or ideas, and to relate meanings in proper sequence. The chief purpose of the first reading is to get the wholeness of the story. Strong motives should be established for the first reading. The silent reading may be done to answer questions, to verify opinions, to compare and contrast characters, and to identify situations. During this silent reading the children should be taught to identify and ask for help on the pronunciation of words and other comprehension problems. This is one purpose of the introductory reading. The teacher will observe evidences of frustration such as vocalization, finger pointing, skipping lines, and the like. The survey reading should always be done silently.

A *third basic principle* of a directed reading activity may be stated this way: *the rereading—either silent or oral or both—should be motivated by new purposes*. A corollary is that the rereading should not be undertaken until common problems of vocabulary and of the understanding of the central idea of the selection have been cleared up. During the initial stages of both reading, there is the ever-present danger of mere memorization; hence, too much rereading at this time should be avoided.

Rereading should be strongly motivated. From a pedagogical point of view, the rereading is done to promote fluency, to foster rhythmical reading, and to relate details to the central idea. The pupils may reread to prove a point, to answer questions, to read to a child who has been absent, to read to another group, to enjoy a story by taking the parts of characters, to prepare for a dramatization, or to merely enjoy the story—its climax, language rhythm, or plot. The reading of a given selection may be terminated by again tying in the episode with preceding episodes, by com-

paring pupil experiences with those of the characters in the story, by reviewing the experiences of the characters, by expressing opinions and feelings about the story, or by anticipating the next story.

A *fourth basic principle* of a directed reading activity is: *the follow-up should meet the needs and interests of individual pupils* A corollary to this principle is that the follow-up activities should develop organization skills and abilities and promote efficient study habits. Follow-up activities usually include workbook activities, dramatizations of stories, taking an excursion to a place somewhat like the one in the story, arts and crafts activities related to the story, and playing games used in the story.

Too often, the accompanying workbook is used as the only type of follow-up. When used judiciously, it may serve pupil needs When used in a regimented fashion, workbook activities may bore the children to the point that interest is stifled and the cause is lost. Learning takes place to the degree that children are challenged. Because of the limited vocabulary of preprimers, the workbooks tend to overemphasize cutting-and-pasting and sheer mechanical manipulation. Hence, the teacher must make sure the pupil can profit from the activity, that the activity is interesting, and that he is carefully prepared for the successful and independent execution of the activity.

The First Book, a Primer. In some schools, the experience approach is used to by-pass the preprimers and to begin book reading with the primer. This is done to avoid the use of preprimers written with such a limited vocabulary that they pose neither literary quality nor content. When the first book is a primer, the children must have more preparation because the vocabulary of the material may include fifty or more different words. In addition, there is more material on a page and the selections are longer, requiring more reading skill than preprimers.

INTERPRETATION THROUGH DRAMATIZATION

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Shaker Heights, Ohio

purposeful because the audience is being informed on problems of mutual interest or it is being entertained. Third, a greater variety of materials may be purchased at no additional cost. Instead of buying thirty books with the same title, thirty different titles are purchased Fourth, individual interests may be catered to and extended. Fifth, experiences are enriched from a variety of sources. Sixth, materials are available at once for both intensive and extensive reading.

Unhappily, this third approach cannot be used in all school situations. In the first place, a high level of professional competency must be achieved by the teacher. It is not possible for the teacher to get by with just "hearing lessons recited." And above all, the teacher must be a successful classroom administrator or bedlam will result. Second, some school administrators do all of the book buying. Too often, thirty sets of first-grade reading materials costing two to five dollars each are purchased with the understanding that reading is to be taught in a regimented fashion Third, in some communities where abortive attempts have been made to modernize the school program, the parents are "down on progressive teachers" These are some of the reasons for evolving rather than revolutionizing a school program. Fortunately, in a democracy the parents get the kind of schools they want. Vigorous leadership based on facts is necessary to lead parents to want the best for their children.

Promotion

There is an old superstition prevalent in some outmoded school systems that children can be admitted to the first grade on the basis of chronological age and promoted on the basis of read-

child is then introduced to "book" reading.

C. When the experience approach is used exclusively the first book may or may not be a basal textbook.

VI. Individual needs are usually met by some form of grouping.

A. The grouping should be flexible to provide for individual variations in growth.

B. Upon admission to the first grade, children are usually grouped in terms of their reading-readiness needs.

C. Two to four groups usually are organized at the beginning of the school year, depending upon the experience of the teacher.

D. Primary-grade classes should be kept *relatively* small in order to give the teachers an opportunity to develop effective study habits.

VII. Experience records are of two types: language-type and reading-type records. In the second type, special attention is given to vocabulary and sentence structure to facilitate reading.

VIII. In terms of their use, experience records may be classified as follows: narrative-type, "What We Want to Know" type, records of plans, progress records, records of experiments, diary records, news records, reminder records, dictionary charts, and exhibit charts. They may be factual or imaginative.

IX. Experience records are developed in a systematic sequence.

A. The children are prepared by means of special experiences and discussions.

B. A reason for recording the experience is clearly established.

C. A group decision is made regarding the organization of the record.

D. The preliminary draft is a cooperative enterprise.

E. The editing and final revision is done co-operatively.

F. Pupils prepare needed illustrations.

G. The teacher or the pupils put the chart in permanent form.

X. The purpose the experience record was prepared to serve dictates its use.

A. Experience records may be used to develop readiness, initial reading skills and abilities, or general language ability.

B. Rereading is motivated by specific purposes, such as to evaluate illustrations, to present information to another group, to evaluate progress, or to obtain specific help.

C. Experience records may be used to develop attitudes of approach, vocabulary, sentence sense, coherence, left-to-right progression, and other basic reading skills and abilities.

D. Individual booklets and records may be used to transfer chart-reading skills to "book" reading.

E. Initial reading skills are developed through the frequent use of records and the rereading of narrative-type records. Attention is directed to the total composition, to sentences, to phrases, and, finally, to words.

F. Experience records may be displayed in pocket charts or they may be suspended from a special chart holder. It is important that they be displayed at eye level.

G. The chief pitfall to be avoided is that of too much repetition which may result in memorization and a loss of interest.

XI. The chief values of experience records for beginning-reading instruction include: learning proceeds from experience to the symbolization of experience (i.e., the abstracting of experience by means of words); the language is child-like; pupil interests are enlisted through the study of personal problems; organization skills and abilities are promoted; readiness may be appraised informally; the reading program is enriched; a gradual transition from oral language to printed symbols is possible; pupils are taught that reading is only one learning aid; a vertical program of language development is enhanced; the large type used contributes to reading hygiene; the near-point visual task is minimized; and social adjustment is promoted. On the

ing achievement. The fallacy of this assumption is obvious. If children were characterized by likenesses rather than differences, one might give some credence to this superstition.

Professional educators have come to the conclusion that promotion policies should be consistent with the facts about differences. No one policy can be laid down. If any one policy will hold water it is that of promotion on the basis of social age. To put this in effect, however, the teachers of children above the first grade must assume their full share of responsibility for differentiating instruction.

Children seldom *fail* to do their part. Teachers often *fail* to promote children. Usually when children are failed, they fail to come up to some adult-imposed standard of achievement. Since seldom more than forty per cent of first-grade children have first-grade-level reading ability, it appears that adult expectations often exceed actuality.

Again, it may be stated that personality development is one of the major goals of education. Wholesome personalities can be developed best in situations where there is a minimum of adult-induced frustration. The day when eight- to fourteen-year-old boys may be found in first-grade classrooms is supposed to have been banished forever.

In general, children differ widely in their achievements. Initial reading instruction is the job of all primary teachers. It behooves each teacher to take each child where he is and provide equal opportunities for growth. Freedom from frustration is the sacred right of every child. Let no teacher violate that right.

Summary

The summary of this chapter is organized in terms of the questions listed in the introduction.

I. The goals of initial reading instruction include the development of interests which foster reading activities, the promotion of oral language facility, the development of basic notions regarding the relationship between visual symbols (words) and experience, the development of concepts, the enrichment of experience, and the development of basic reading skills and abilities, including a serviceable sight vocabulary.

II. The history of American reading instruction is a review of the evolution of modern reading procedures and materials

  A Emphasis has shifted from synthetic to analytic methods.

  B There is evidence of a gradual development of the basic principles of word perception.

  C There has been a general acceptance of the intrinsic, or meaning, approach to word recognition.

  D. Emphasis has shifted from highly complicated systems of phonetics to the systematic development of phonic ability in meaningful situations.

  E The objectives of reading instruction have been broadened.

  F An increasing number of teachers are using an experience approach to initial reading instruction.

III. Some of the emphasis on silent reading in the non-oral approach to beginning reading may be justified.

IV. Some children with normal or superior intelligence do not learn to read by the usual methods; hence, these deviates may be taught by the Fernald-Keller technique, and, in some cases, by a modified kinaesthetic approach

V Practices in regard to initial reading instruction vary from an all-out experience approach to the exclusive use of basal readers

  A When basal readers are used, the children are grouped and taken from the reading-readiness book into chart reading and the first preprimer.

  B When a modified experience approach is used, the vocabulary and reading skills are developed through the use of experience records. The

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other hand, the use of experience rec-
ords may produce sheer memorization,
provide insufficient vocabulary control
to facilitate retention, result in a narrow
reading program, present the child with
material of an inferior literary quality,
develop poor attitudes and an over-
dependence on context clues, give too few
opportunities for creative reading, fail
to provide for individual needs, be too

time-consuming, and overemphasize oral
reading

XII. Pupils are usually introduced to
book reading after they have acquired
control over the vocabulary of the first
units of the book and over basic reading
skills and abilities.

XIII In general, children are promoted
on the basis of social age, not reading
achievement.

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ing and freedom from mechanical difficulties? This will be referred to hereafter as the *basal*, or independent, *reading level*. Second, what is the highest reading level at which systematic instruction can be initiated? This will be referred to as the *instructional level*. Third, at what reading level is the individual thwarted or baffled by the language (i.e., vocabulary, structure, sentence length) of the reading material? This will be designated the *level of frustration* in reading. Fourth, what is the highest reading level at which the individual can comprehend (i.e., deal adequately with the facts by means of oral language) material read to him? This will be referred to as *probable capacity level*. As used herein, "level" refers to the grade level at which the material was prepared for use; for example, preprimer, primer, first reader, second reader, and so on.

Crucial by-products. In addition to these four basic types of information obtained directly from the administration of an informal reading inventory, four crucial by-products are acquired: First, an index to interests, persistence, ability to concentrate, and attitude toward reading. Second, a knowledge of specific needs at the instructional level in such areas as word recognition, management of various sized units of material, location of information in books, relating main ideas and details, etc. Third, information on breadth and depth of background of information. Fourth, evidence of physical handicaps, such as defective vision or hearing. Information of this nature can be obtained by the systematic observation of behavior in reading situations.

This means of appraising the reading facet of language is called an Informal Reading Inventory (p. 21). Various forms of such an inventory are known as diagnostic reading chart, diagnostic reading inventory, systematic inventory of reading abilities, reading subjective, reading manifest, individual reading test, and book-level test. While research has validated most of the items included in the criteria for appraising reading performance by means of an informal reading inventory, total criteria for this purpose are in need of further study.

The teacher who learns to use the techniques described in this chapter will be well on her way to differentiating instruction. A wise use of instructional materials is preceded by an appraisal of the pupil's ability to deal successfully with them and by a survey of his learning needs.

Generations before the advent of standardized capacity and achievement tests, educational leaders recognized the wide range of capacities, abilities, and interests at a so-called "grade" level and urged their fellow educators to differentiate rather than regiment instruction. Time has extended our professional understandings of the range and complexities of differences within the classroom. Certain glaring differences and combinations of differences can be identified by very brief observations. For example, in almost any elementary-school class, the reading-achievement levels may be expected to vary from three to as much as ten or twelve grade levels. At the end of the first grade, it is commonly found that children range from reading-readiness groups up to about third-grade level reading ability (11). Each successive year of education increases the range and the complexity of these differences among learners in a class.

Two second-grade pupils, Sally and Billy, may be used to illustrate briefly the complexity of the instructional problem in a given grade. Both had chronological ages of seven years. Their reading achievement was estimated to be about "first-reader" level, which indicated to the teacher that systematic reading instruction should be initiated at that level. (How these different levels were estimated will be described in the succeeding discussion.) Sally's *basal* reading level was estimated to be about primer level, while Billy's was assessed at about preprimer level. Here was a difference in the read-

Informal tests based upon the reading materials used in the class-
room and charts of faulty habits and difficulties observed when
the child is reading provide the best basis for planning effective
instruction   DONALD D DURRELL (31, p 18)

Begin with the Learner

Two Aspects of Appraisal. In a classroom
or clinical situation, there is a need for
abbreviated and practical devices, tech-
niques, and procedures for appraising
reading performance. The appraisal
should be double edged. First, it should
reveal learner needs to the teacher,
second, it should help the learner to
become aware of his own needs for guid-
ance or instruction The discussion
herein summarizes certain considera-
tions basic to an adequate appraisal of
the reading facet of language, outlines
some of the limitations and uses of stand-
ardized appraisal devices, and describes
materials and procedures employed for
making an informal reading inventory.

Percy J Crosby in his *Skippy* cartoon
contributed this pertinent satire on regi-
mented instruction.

Father. "Skippy, come here!"
Skippy "Yes, Papa"
Father "This report card is even worse
than the last Aren't you ashamed? You must
be at the bottom of the class "
Skippy "That's all right, Papa They
teach the same thing at the bottom *as on
top* "

Rational Basis for Evaluation Construc-
tive suggestions, not just criticisms, are
needed to right the situation If the
teacher is not to teach the same thing
at the bottom of the class that she teaches

at the top of the class, then she first must
acquire techniques for sorting out her
instructional problems It is all right to
point out the wide range of capacities,
abilities, and needs existing at any one
grade level, but the teacher must have
some rational basis for evaluating her
problems. The chief purpose of this chap-
ter is to describe informal techniques for
evaluating readiness for continued sys-
tematic instruction in reading

Fundamental Assumptions. Teachers are
admonished by speakers and writers to
begin where the learner is—to make a
diagnostic approach to reading instruc-
tion This discussion is based on two
fundamental assumptions First, every
teacher is a teacher of reading, therefore
readiness for reading in a given "subject"
or field is of primary concern to every
teacher Second, reading is only one
facet of language development and is
based upon the pupil's background of
experience. Fruitful instruction must be
based on an understanding of the learn-
er's achievement and his needs

Basic Information

An appraisal of the reading needs of a
given individual should provide the
teacher or the clinician with four basic
types of information: First, what is the
highest reading level at which the in-
dividual can read with full understand-

—who are in need of further study and guidance. Third, to compare the achievement of individuals and of groups with their capacities for achievement as measured by means of standardized tests of capacity to learn. Standardized reading tests, then, do have a place in a modern program of guidance in reading and study.

Misuse of Tests. The use of standardized tests in some school situations, however, can be questioned. First, in some schools there appears to be a tendency to emphasize the average class achievement and to disregard the wide range of *differences* that exist in a given class or grade. This inadequate interpretation of standardized test findings has led some school administrators and teachers to follow textbook prescriptions and thereby regiment instruction without further consideration of individual learner needs.

Second, in some school situations an overemphasis has been placed on the adequacy of standardized tests for measuring the reading facet of language development. For example, a test over word recognition and paragraph meaning is used sometimes as the only basis for identifying reading needs. A careful study of the many highly interrelated factors in reading ability should soon dispel such notions regarding the adequacy of certain standardized reading tests for appraising the many specifics in reading ability.

Third, some administrative and supervisory officers appraise the instructional program only by means of standardized test data. In fact, some go so far as to post on the school bulletin boards the class averages that advertise the so-called effectiveness of the teacher. Instead of acting as a spur to better teaching, some "wise" teachers will use copies of standardized tests for instructional purposes, thereby invalidating the findings. In these situations, vicious procedures are the result. These misuses of test materials lead to still other unfortunate outcomes. The authors of these tests tend to become

dictators of the instructional program; both teachers and pupils tend to develop fears of standardized tests; and the more important goals of pupil development are neglected and not achieved.

Fourth, in many schools the validity of a grade score on an achievement test has been overemphasized. In a recent study (19) by the Reading Clinic staff, it was found that not one of several standardized reading tests designed for use at the fifth-grade level was adequate for determining the achievement levels of pupils at upper or lower ends of the distribution. Although ten per cent of the class did not exhibit desirable reading behavior on first-grade materials, some of the tests graded these pupils no lower than second-, third-, or fourth-grade level. In general, standardized tests may be expected to rate those pupils from one to four grades above their manifest achievement levels. While this is not an all-out indictment of achievement tests in reading, it is a caution to those who attempt to use standardized test data as a sole criterion for appraising achievement level.

Fifth, careful consideration is not always given to the selection of standardized reading tests. The purposes to be served by the administration of a test should dictate the criteria for selection. Some tests are designed for survey purposes; others for the study of specific reading abilities. The uses to which these two general types of standardized reading test scores are to be put should be next in consideration. A survey test can be used to identify those pupils in the lowest quarter of the class and to secure some notion about relative achievement levels of all the pupils at a given grade level. On the other hand, a primary-reading test should be used to study low achievers at an intermediate-grade level, and an elementary-school test is more serviceable for studying the gross needs of low achievers at the secondary-school level. Since the range of abilities increases from one grade level to another

and standardized tests are developed to serve different purposes, the selection of standardized reading tests requires consideration action

While certain general types of information regarding the learner's needs can be secured by means of standardized reading tests and informal survey inventories, an analysis of specific needs is required for a substantial proportion of each class For some pupils, the basal textbook may not be challenging Pupils with reading abilities considerably below the class average may find themselves literally unable to pronounce the words in the basal textbook, and therefore unable to read Others with reading abilities far above the class average may be bored with the elementary treatment of the information in the textbook These problems require the use of techniques which will permit an analysis of needs

READABILITY, OR READING DIFFICULTY, OF MATERIALS

Grading of Instructional Material McGuffey often is credited with having started the practice of grading the difficulty of basal reading materials His series of graded readers were published about 1840 During the 1920's, mechanical studies of vocabularies—i e, counts of the spelling forms—contributed substantially to progress in grading the readability of instructional material, especially in the elementary school At about the same time, Ogden's work on Basic English, Dolch's research on word meanings, and similar publications laid the foundations for the current interest in the semantic (i e, the problem of meaning in language) aspects of comprehension, or understanding Since the latter part of the 1920's, the profession has had access to an increasing number of publications under such headings as the grade placement of reading materials for children, what makes a book readable, and other factors influencing difficulty of reading materials This broader approach to problems of readability has

been contributed to by Vogel and Washburne (54), Dale and Tyler (28), Bergman (5), Ojemann (46), Gray and Leary (34), E. L. Thorndike (53), Lewerenz (43), and others. Since the publication of the McGuffey Readers, substantial progress has been made in furthering *professional understandings* of factors that contribute to or detract from reading difficulty and instructional materials have been improved in this respect.

Readiness for What? This whole problem of what makes matter readable for one person and not for another and of what makes one book more difficult than another for a given individual is a complex one indeed One observation is certain mechanical factors alone, such as vocabulary and sentence length, are inadequate criteria for appraising readability. Furthermore, the *individual must* be studied—his general language facility, his background of information and feeling, and his interests. On the one hand, we find the individual reader with certain interests, language facility, and background of information. On the other hand, we may find the reading material written in a clear, lucid style or in a highly abstract and abstruse language. In summary, readiness to read "what" is a two-way proposition, involving both the preparation of the reader and the difficulty of the reading material.

Accuracy and depth of comprehension depend upon at least three functionally interrelated factors: First, the abstractness—i e, difficulty or complexity—of the facts; second, the language setting or symbolization, of the facts; and third, the background of the pupil. Generally speaking, the more remote the language-fact relationships, or constructs, are from the learner's experience the more abstract they are. For example, the feeding of a pet might be discussed in terms of milk, water, and dog biscuits or in terms of calories, vitamins, metabolism, etc. In the first instance, descriptive language understandable to a child can be used, while in the second instance higher level

abstractions might be employed to challenge a specialist in nutrition. The vocabulary and language structure may be expected to be as complex as the things talked about. The total background of the listener or reader further contributes to comprehension. Hence, the level of abstractness, the language structure, and the individual's previous experiences function in a highly related manner to condition the degree of understanding.

The point frequently overlooked in practice is that there is no such thing as reading material suitable for *all* the children of a given class. The wide range of reading abilities at any "grade level" and the complexity of reading processes precludes the possibility of preparing materials for regimented class instruction.

CONCLUSIONS

From various types of investigations on readability, the following conclusions can be made:

I. Readiness is a potent factor in comprehending what the printed symbols represent.

A. The purpose of the reading dictates to a considerable degree the types of reading skills and abilities employed. An individual may be motivated to use study-type reading in one situation and skimming or rapid reading in another. In the first instance, a heavy burden of language-fact relationships may be acceptable while in the second instance the reader may be frustrated by the same burden.

B. Interest in a given problem may motivate a reader to read for him otherwise very difficult materials. In this instance, frequent reference to a dictionary or glossary may not be too distracting.

C. The reader's facility in the use of language is directly related to comprehension. A meager vocabulary and faulty control over language structure may preclude the possibility of dealing with any more than the most simply written materials.

D. While they probably cannot be divorced from language, the facts dealt with in reading materials merit very careful consideration. Unless the reader can reconstruct the facts which the visual symbols represent, comprehension is impossible.

II Elements inherent in the language reading materials contribute to the difficulty of reading After describing criteria for selecting the most useful elements influencing reading difficulty, Gray and Leary secured this yield (34, p. 130): "number of different hard words; number of easy words; percentage of monosyllables; number of first-, second-, and third-person pronouns; average sentence-length in words; percentage of different words; number of prepositional phrases; and number of simple sentences."

A. Vocabulary burden ranks high as a factor in reading difficulty. However, since most of the vocabulary studies published to date are based on mechanical rather than semantic, or meaning, counts, their values for appraising the readability are seriously limited.

B. Structural elements of the language used significantly influence readability. A relatively "simple" vocabulary, as measured by lexical counts, or counts of the spelling forms of words, may be used to write about intrinsically complicated facts requiring complex language structure.

USES OF A SYSTEMATIC READING INVENTORY

Both the total and parts of the informal reading inventory have been demonstrated to be practical for appraising the reading needs of individuals at all levels from reading readiness through college. Some of the uses to which the findings can be put may be listed as follows:

I. Determination of readiness for systematic reading instruction:

A. As one basis for determining membership in a given reading-readiness group

B As one basis for determining membership in a beginning reading group

C As the chief basis for grouping for directed reading activities, especially where basal readers are used

II Evaluation of readiness for spelling and other facets of elementary school English

III Determination of maximum level of readability of materials for independent reading

IV Estimation of increments of progress for guidance purposes and home reports

V Appraisement of specific reading needs at the instructional level

VI Screening out cases of general mental retardation for further study (Few teachers are professionally prepared to administer an individual test of intelligence, but the rapid increase in the number of psychological examiners and school psychologists makes it imperative for teachers to have some means of detecting cases in need of referral to them.)

VII. Estimation of amount of retardation in reading (This is done by estimating capacity, or hearing comprehension, level and instructional level. The difference between these two achievement levels is an approximation of the amount of retardation)

VIII. Estimation of probable capacity for reading instruction and from this the probable rate of progress

IX. Analysis of reading problems (An informal reading inventory can be used to obtain crucial data such as reading levels, specific needs at the instructional level, symptoms or manifestations of reading difficulties, and certain possible causes of the handicap.)

BASIC ASSUMPTIONS

In developing this inventory for classroom and clinic uses, certain assumptions were made

1 Independent reading should be done in materials that present relatively few *mechanical or comprehension difficulties* for the learner.

2 Independent reading usually should

be done in materials that have a lower level of readability than those used for directed reading activities where intensive reading is required. (Some teachers using basal-reading textbooks use the term "reading lesson" to designate a "directed reading activity" as used by the writer.)

3 Systematic instruction in reading provided through carefully directed reading activities usually should be done in materials that challenge the pupils with new learnings (e.g., vocabulary, punctuation, facts, etc.)

4. Systematic instruction in reading provided through carefully directed reading activities should be done in materials that are readable for the learner; that is, well below the level of readability at *which the learner is frustrated*

5 Hearing comprehension provides an index to capacity for reading (It is further assumed that comprehension is highly related to the adequacy of the learner's statements describing the fact or facts)

6. Symptoms of reading difficulty *increase in direct proportion to the increase* in the difficulty of the material (It is further assumed that symptoms of reading difficulty may be used as a basis for estimating reading achievement)

Detection of Faulty Silent Reading Neither the teacher nor the doctor prescribes treatment for symptoms, but symptoms are used to identify the cause of the difficulty It is a peculiar combination or constellation of symptoms or difficulties that guides the teacher in the identification of the causes Symptoms of underlying causes of faulty silent reading include silent lip movement or vocalization, excessive head movement, holding the book too near or too far, tension movements, finger pointing, and low comprehension Symptoms of faulty oral reading include additional items such as high-pitched voice, monotonous reading, word calling or inadequate phrasing, low rate, and word-recognition difficulties (e.g., guessing, omitting, repeating,

inserting, substituting, reversing letters and words, etc.). The well-prepared teacher does not attack a symptom; instead she relates the symptoms and draws a conclusion regarding the underlying cause or causes.

At the basal reading level none of the symptoms of faulty reading behavior is in evidence. As the examiner proceeds with increasingly difficult material, the symptoms appear and progressive deterioration of behavior is observed. For example, at one level the pupil may begin to use finger pointing and vocalization; at the next level, he may add to these crutches substitutions and omission of words; and so on until a level is reached at which he may be completely frustrated. As the typical pupil becomes increasingly frustrated, he may exhibit tension movements of the body, hands, and feet, he may frown and squint, and he may exhibit other types of emotional behavior characteristic of a frustrated individual.

Two Useful Studies of Reading Inventory
Space does not permit a summary of all the investigations pertinent to the use of informal reading inventories. A detailed explanation of all the whys and wherefores of a reading inventory would probably fill a sizable volume. Attention, however, should be directed to at least two studies.

Dr. William E. Young's investigation, *The Relationship of Reading Comprehension and Retention to Hearing Comprehension and Retention,* is a basic contribution (56). For his study, Dr. Young used fifteen selections of four types of material. These selections were presented to pupils in grades four, five, and six in four modes:

(1) Mode A, the teacher read aloud to the pupils, (2) Mode B, the teacher read aloud to the pupils while they read silently; (3) Mode C, the pupils read the selection once silently at their own individual rate, and (4) Mode D, the pupils read the selection silently for the same amount of time assigned for the oral reading by the teacher.

Comprehension for each mode was appraised by immediate recall tests. (A special experiment was made on delayed recall.) Dr. Young concluded:

In general, children who do poorly in comprehending through reading do poorly in comprehending through hearing. No children were found to be in the highest quarter of one of these phases of language comprehension and in the lowest quarter of the other.

Dr. P. A. Killgallon, in his *Study of Relationships Among Certain Pupil Adjustments in Language Situations* (38), used fourth-grade pupils. His findings pertinent to this discussion may be summarized as follows: First, the standardized test of reading achievement used in the investigation placed pupils an average of one grade above their placement estimated from the reading inventory. Second, the average estimated basal reading level was about first-reader level. Third, the average estimated instructional level was about third-reader level. Fourth, the average estimated frustration level was about sixth-reader level. Fifth, the average estimated capacity level was about fifth-reader level. Sixth, the instructional level was estimated to be at least two grades above the basal level. Seventh, most of the difficulties at the instructional level were noted as word-perception errors. Eighth, the reading and spelling facets of language were highly interrelated. Among Dr. Killgallon's conclusions, this is pertinent:

On the average, the ratio of word perception errors to the number of running words at the instructional level is one to twenty.

Basal Level

The basal level can be described as the highest level at which an individual can read and satisfy all the criteria for desirable reading behavior in silent- and oral-reading situations. Information on basal reading level is essential for directing extensive reading activities because the readability of materials should be at

ROBIN HOOD COMES TO LIFE

Lucile Allard

or near that level. In short, the basal reading level approximates the level at which "free," supplementary, independent, or extensive reading can be done successfully.

APPRAISAL AT BASAL LEVEL

Criteria for evaluating reading performance at the basal reading level include

I A minimum comprehension score of at least ninety per cent, based on both factual and inferential type questions

II Freedom from tensions sometimes induced in the reading situation, such as frowning, tension movements of the hands, feet, and body, etc

III Freedom from finger pointing

IV Acceptable posture; e g, the book is not held too close or too far

V Oral reading (at sight and following silent reading) characterized by

  A Rhythm; i e, proper phrasing

  B Accurate interpretation of punctuation

  C Accurate pronunciation of more than ninety-nine per cent of the words

  D Use of conversational tone; i e, freedom from a high-pitched voice sometimes induced by the reading situation

VI Silent reading performance characterized by.

  A A rate of comprehension higher than that for oral reading

  B Absence of vocalization

Level of Best Achievement The basal reading level for a given individual represents that level of achievement at which experiences, vocabulary, language constructions, and organization are under complete control. This level of achievement frees the learner to evaluate and reflect as needed for full understanding. Under these circumstances, the learner is able to engage in extensive, independent reading activities. The above criteria

for determining reading level must be used with judgment. For example, vocabulary load is one of the most formidable barriers to reading. Specifically one criterion requires the accurate pronunciation of more than ninety-nine per cent of the words. In his discussion of desideratum for supplementary reading, E. L. Thorndike opined (53, p. 230) that "words unknown to the reader should occur only rarely. A reasonable standard is not over 1 in 200." Furthermore, the comprehension score may depend to no small degree upon the quality of the questions. Then, too, some of the criteria may have to be tempered with judgment in dealing with special cases such as speech defectives. When the basal reading level is obtained, the teacher can be assured that the learner will experience little difficulty with materials at or below that level of readability.

Unusual Cases. In any typical elementary school class, pupils will be discovered who have no basal level as described by the criteria. These pupils include nonreaders, seriously retarded readers, reading-readiness cases, cases of general mental retardation, individuals evidencing a lack of general academic achievement, individuals with foreign language handicaps, and those with emotional adjustment problems. Then, too, pupils who have no clear-cut basal reading level may be found at any age or grade level. In some instances (e.g., nonreaders, mentally retarded children, and reading-readiness cases) the pupils may be unable to engage successfully in independent reading activities. In other instances, independent reading may be done at a level above the basal reading level. It is clear then that information in addition to that obtained regarding the basal reading level is sometimes necessary for determining the level at which independent reading can be done.

Teachers in all subject matter areas can improve their instruction through a better understanding of pupil development in the reading facet of language.

In learning situations, language and facts, or experience, cannot be divorced. When pupils are required to memorize dates in history, the "meanings" of lists of words for "vocabulary development," terms in science and the social studies, and the like, a first-class group of verbalizers is produced. Verbalism, or sheer wordiness, results when language is overemphasized. To insure meaning for the learner, vocabulary and the other aspects of language must stand for, or represent, facts within the learner's experience. In a so-called reading class, the development of verbalization is all too likely to result. Then, again, the teacher who is bent on getting facts across to a class in a laboratory situation may neglect language development, especially the reading facet of language. As stated by E. L. Thorndike (53, p. 3), ". . . words and constructions should be learned in association with, and in subordination to, facts and principles." In a well-balanced instructional program, each teacher assays the potentialities of learning situations for their contributions to pupil control over *language-fact relationships.*

Instructional Level

Where Learning Begins. Since so many factors must be taken into consideration for determining the instructional level, perhaps *Probable Instructional Level* would be a better descriptive term to use. Regardless of the label used to designate this level, the teacher or clinician must have some means of arriving at a sound judgment regarding the level where instruction can be given to satisfy learner needs. When the learner is confronted with materials that have a readability beyond his grasp, he is likely to be frustrated in his learning activities. On the other hand, maximum development is not likely to accrue when the learner is given a diet of reading materials dealing with facts and expressed in a language that does not challenge his best intellectual endeavors. In short, it is imperative

STEPS OF READING

HEARING STEP

I understand what is being read to me but I would be unable to read the story myself. I can listen to early stories and a few programmes and lessons, understand them and enjoy them. I can give oral reports on what I have heard.

TROUBLESOME STEP

I don't understand half of what I read and I feel very sad and unhappy. Sometimes I can't stand still as I read and I sit in pain with my fingers as I read with my lips. Often I can't pay attention. I should not read on the idea when for my reading will not improve.

TEACHING STEP

I understand what I am taught from the readers and other books and can get honours in the tests. I can pronounce 95 out of 100 words. I don't fidget, read with my lips, or point as I read, but I feel at ease.

MY STEP

I can read by myself without help, and understand what I need. I can pronounce almost every word. I feel comfortable and enjoy reading. I read for fun and to find out things. I can give reports on what I have read.

Am I Reading the Right Book?

Pupil's Viewpoint

LEVELS OF READING

ARE 50% OF PUPILS FRUSTRATED IN READING?

What should we do?

Find the pupil's **BASAL LEVEL** and start from there

NEEDS   CAPACITY LEVEL   CRITERIA

FRUSTRATION LEVEL

CAPACITY LEVEL

This is the hearing (listening) the highest level of readability at which a child is able to understand when listening to someone read or tell. Pupil must understand the selection and be able to express himself adequately. He verbalizes Adequate background of experience.

FRUSTRATION LEVEL

This level to be avoided it is the lowest level of readability at which a child is unable to understand. The material is too difficult and frustrates the pupil.

INSTRUCTIONAL LEVEL

This is the teaching level. The reading material must be challenging and not too difficult. Follow the five steps of a transition lesson.

BASAL LEVEL

This is the level of supplementary and independent reading. Child should be able to read the book at home or school without aid. The material should cause no difficulty and have high interest appeal.

Teacher's Viewpoint

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that a teacher or a clinician should have some systematic means of appraising a learner's general level of achievement. Maximum development may be expected when the learner is challenged but not frustrated.

Limitation of Standardized Tests. The users of most standardized tests of reading achievement undoubtedly desire to secure a fairly valid and reliable index to reading achievement. What they actually get is a score that indicates the performance of one individual in relation to other children at an equivalent age or grade level and the performance with one set of reading matter printed according to one set of typographical specifications. While this is one recognized limitation of a standardized reading test, too often an attempt is made to predict the instructional level from the test score.

As at the basal reading level, there should be no strain or fatigue at the instructional level. Criteria for evaluating reading performance at the instructional level include:

I. A minimum comprehension score of at least seventy-five per cent, based on both factual and inferential questions
II. Accurate pronunciation of ninety-five per cent of the running words
III. Ability to anticipate meaning
IV. Freedom from tension in the reading situation
V. Freedom from finger pointing
VI. Freedom from head movement
VII. Acceptable reading posture
VIII. Silent reading to locate specific information characterized by:

A. A rate of comprehension substantially higher than that for oral reading
B. Ability to use sight word techniques (e.g., context clues, picture clues, configuration clues, and rhythm clues) and/or word-analysis techniques (e.g., phonics and syllabication) for visual recognition of "new" reading words (i.e., words understood when heard or used orally but not previously en-

countered in reading), depending on the level of reading achievement
C. Absence of vocalization
D. Ability to identify mechanical (e.g., word-recognition) or comprehension (e.g., meaning) difficulties requiring outside assistance (For example, the pupil should be aware of the need for help from the teacher or of the need for turning to a glossary or dictionary)
IX. Oral reading performance, preceded by silent reading, characterized by:

A. Rhythm, i.e., proper phrasing
B. Accurate interpretation of punctuation
C. Use of conversational tone
D. A reasonably wide eye-voice span

Silent Reading to Precede Oral Reading. There is general agreement on one basic principle regarding directed reading instruction, especially in situations where basal readers are used namely, *silent reading should precede oral reading.* (A corollary to this may be stated *the silent or oral rereading should be motivated by purposes (i.e., problems or questions) different from those which governed the preceding silent reading.*) Directed silent reading before oral reading has at least three merits: First, each child in a group can read without having his performance paced by another child. Second, silent reading permits the learner to identify and to overcome specific comprehension and word-recognition difficulties. Third, the oral rereading may be done with facility; that is, without the reader's being hampered by comprehension or mechanical problems. Fourth, the pupil is given an opportunity to make maximum use of word-recognition skills, especially context clues. During the administration of the informal reading inventory the teacher or clinician should observe silent-reading habits. For example, some children when asked to read silently to obtain the answer to a question may plunge at once into a humdrum, high-pitched oral reading of the entire selection because that is the only kind

of "reading" they know This is especially true of retarded readers whose difficulties probably were brought about by faulty or questionable teacher management of learning Careful observation of reading performance permits the examiner to piece together the symptoms of the reading difficulty for the purpose of identifying the cause or causes

That any observable form of vocalization—such as silent lip movement, whispering, and low vocal utterance—retards the rate of silent reading has been common professional knowledge since the early scientific studies of reading. For example, in 1894 Adelaide M. Abell (1) reported lip movement as contributing to the difference in the accomplishment of good and poor readers Practice in reading without lip movement has been demonstrated as producing distinct increases in rate of reading. By means of a systematic inventory of reading performance, the teacher or clinician may analyze background deficiencies contributing to the observable lip movement. When lip movement is used, the silent-reading rate may be slowed down to that of the oral-reading rate.

It will be noted that lip movement or any observable form of vocalization is not acceptable at either the basal or instructional levels. Lip movement is viewed largely as symptomatic of frustration. Generally speaking, the silent-reading rate should exceed the oral-reading rate. When *vocalization is* employed as a crutch to aid in pronunciation or is retained as a carry-over from previous experiences, the silent-reading rate is lowered in the direction of the oral-reading rate. When vocalization is used as a pronunciation crutch, the learner can be aided by taking him back to a lower level of readability where word recognition first *begins* to be a problem and by providing systematic guidance for the gradual development of this ability. If, on the other hand, the vocalization is a carry-over and the only major symptom of undesirable reading behavior at what might be the instructional level, the readability may be reduced for a few periods of instruction until this handicap to efficient silent reading is overcome. Following this, the level of readability may be rapidly stepped up to that used at the instructional level. Lip movement is one symptom of a reading difficulty.

In some instances, instructional level and specific needs at that level can be estimated in a very few minutes. Donald, age eight, was classified as a third-grade pupil Since he was given stereotyped third-grade instruction this meant that he was required to "read" a third-grade reader and to "spell" third-grade words. From the evidence obtained from an informal reading inventory, it was learned *that the instruction was far over his head.* This information was obtained in less than fifteen minutes.

Donald's basal reading level was estimated to be about "first preprimer" level, indicating limited independent reading possibilities. His instructional level was estimated to be about "high preprimer" level Donald was completely frustrated in his attempts to read the first reader Above the preprimer level, he used his thumb to point to each word and did straight word-by-word reading with ample evidence of inadequate word-recognition skills On an isolated word-recognition test over the words in the basal readers used, he scored eighty-five per cent on the preprimer vocabulary and forty-eight per cent on the primer vocabulary Only a few minutes were required for the examiner to satisfy himself that this boy needed to develop sight-word technique and to acquire facility in control over the language in very elementary materials Furthermore, it was quite clear that more attention should be given to the reading facet of language before initiating systematic instruction on the writing facet.

Standardized tests of reading achievement tend to place children at their frustration levels

Frustration Level

Causes of Frustration. Reduced to its lowest common denominator, the frustration level is the lowest level of readability at which the pupil is unable to comprehend printed symbols to a reasonable degree. In other words, the individual is inadequate to deal with the reading matter. A number of things may contribute directly to frustration. First, the pupil may not have control over adequate word-recognition skills. When he has no means of unlocking the pronunciation of a word, he is denied the possibility of calling on his speaking or listening vocabulary. This results in an inutal thwarting of desire from which there just simply is no escape. Second, the pupil may have a meager background of experience which limits his ability to read in the sense that he cannot reconstruct the facts behind the symbols. When an individual doesn't understand what he is "reading" about, interest soon wanes and reading becomes a steep uphill business. Third, a pupil's vocabulary may be inadequate for dealing with his experiences. For example, a child may have observed the *comb* on a rooster's head or *capillary action* without having learned to use the descriptive labels. Fourth, the *constructs* or *concepts*, may be presented in such highly condensed, or summary, form that they just simply come too fast. While some progress has been made in improving the readability of science and social-studies textbooks, this situation is most likely to arise in these areas. Usually a combination of difficulties characterizes behavior at the frustration level. Satisfactory progress is most unlikely to result when the instructional materials confuse and puzzle the learner.

Appraisal of Frustration Level. Some of the criteria for estimating the frustration level may be briefly described as follows:

I. A comprehensive score of *less than fifty per cent*, based on factual and inferential questions

II. Inability to pronounce ten per cent or more of the running words

III. Inability to anticipate meaning

IV. Unfamiliarity with the facts discussed in the material

V. Frequent or continuous finger pointing

VI. Distracting tension, such as frowning, blinking, excessive and erratic body movements, "nervousness," and faulty breath control

VII. Withdrawal from the reading situation

    A. Unwillingness to attempt the reading

    B. Outright refusal to attempt reading

    C. Crying

    D. Attempts to distract the examiner's attention from the problem

VIII. Easily distracted attention

IX. Silent reading characterized by:

    A. A very low rate

    B. Inability to use context clues to pronunciation

    C. Excessive lip movement

    D. Whispering, or low vocal utterance

X. Oral reading characterized by:

    A. A lack of rhythm, or word-by-word reading

    B. Failure to interpret punctuation

    C. High-pitched voice

    D. Irregular breathing

    E. Increased tendency to stutter

    F. Meaningless word substitution

    G. Repetition of words

    H. Insertion of words

    I. Partial and complete word reversals

    J. Omission of words

    K. Practically no eye-voice span

The importance of noting frustration level was illustrated by Tyler's case. For a number of reasons, Tyler did not succeed with typical first-grade reading activities in spite of his "above-normal" general intelligence. At the end of his first year, Form B of the Van Wagenen Reading-Readiness Test was administered with the following results:

Range of information—very good.
Perception of relations—above average.
Vocabulary—above average.

Memory span for ideas—average
Visual discrimination—superior
Word learning—good

This test did not disclose a good reason for lack of achievement in reading.

A very carefully made visual analysis revealed a functional difficulty. For example, he was making a concession of his distance vision in order to satisfy his visual needs at reading distance. Added to this functional nearsightedness was a tendency to ignore the vision in the right eye and a serious loss in depth perception. His vision specialist agreed that this functional visual difficulty could be corrected, without glasses, by means of visual re-education exercises. While his visual problem contributed to his reading handicap, it did not explain fully his reading disability.

An informal reading inventory was administered at the end of the first semester of the second year. His basal-reading level was below preprimer level, indicating his inability to engage successfully in independent reading activities. His word-recognition skills were inadequately developed and he was unable to interpret punctuation, especially the comma before *too* at the end of a sentence.

His instructional level was estimated to be about beginning primer level. In more difficult primer material evidences of frustration began to stand out. In his silent reading, whispering was a form of vocalization used as a pronunciation crutch. Help was required for the pronunciation of about eight per cent of the words. In fact, he had to be prompted on two words twice. In his oral reading he omitted the word *and* in a compound subject so that "Father and I like kittens" was read as "Father, I like kittens." Material more difficult than beginning primer level produced word-by-word reading. At all times, he used his thumb very slyly as a reading marker to guide himself from one line to the next.

At the first-reader level his comprehension score dropped sharply and evidences of frustration increased. He continued to finger point and was unable to make any appropriate phrase breaks. Help was required for the pronunciation of about fifteen per cent of the words. Only one meaningful substitution of words was made.

At the second-reader level Tyler was completely frustrated. He could not pronounce twenty-one per cent of the words. When these words were pronounced for him, however, he made an excellent comprehension score. Without pronunciation help, his comprehension score was close to zero.

In the classroom Tyler was frustrated. His teacher forced him to "read" second-grade readers and to "spell" second-grade words with all the other children in the class. He did what any other normal boy would do in a hopeless situation; he became a social problem.

Tyler had reading capacity but no reasonable opportunity to use that capacity. When material was read to him from a third-grade reader, his comprehension score was one hundred per cent. His comprehension score was eighty-six per cent when material from a fourth-grade reader was read to him. This appraisal of hearing comprehension was carefully checked by means of both factual- and inferential-type questions. A special check was made of his control over the vocabulary and the facts in the test selections. In short, Tyler evidenced at least three full years of retardation in reading.

Capacity Level

Highest Comprehension Level. The capacity level can be described as the highest level of readability of material which the learner can comprehend when the material is read to him. This provides not only information on the learner's capacity for reading but also on his ability to understand the oral reports of his classmates. The problem is not one of ascertaining control over oral language and facts but over language-fact relation-

ships described orally, for language and facts, or experience, cannot be divorced. In some instances, experiences may outweigh or outrun language facility, but when language exceeds facts, or experience, sheer verbalism, or the meaningless use of words, results. Language and facts are so inextricably related that the use of the term language-fact relationships is necessitated. Capacity level, then, is appraised by observing and evaluating the listener's control over language-fact relationships.

APPRAISAL OF READINESS AT VARIOUS SCHOOL LEVELS

Several means have been used for estimating reading readiness or reading capacity at various school levels. First, a form for collecting pertinent data on developmental history has been evolved by the Reading Clinic staff. Second, standardized individual and group tests of reading readiness, or reading aptitude, have been used fairly extensively since about 1930. These have been limited largely to appraising readiness for initial reading instruction. A *group* test at the kindergarten and first-grade level has very serious limitations when used to appraise *individual* readiness for reading. Third, standardized group and individual intelligence tests are used for estimating readiness. Since mental age and reading age only correlate about .60, the relationship is highly significant but leaves many factors unaccounted for. Furthermore, group intelligence tests of both the verbal and nonverbal variety have serious limitations for the study of *individual* capacities and needs. Fourth, Dr. William E. Young (55) opened the way for the study of hearing comprehension. More recently the *Durrell-Sullivan Reading Capacity Test* has been developed to satisfy a need in this respect. The procedure for estimating reading capacity described in this chapter is based on an appraisal of hearing comprehension. This is done by reading to the child from graded reading materials. Fifth, tests of

background of information have been used to provide still another index to reading capacity. Cues have been taken from these techniques in developing the procedure described herein. Sixth, tests of marginal factors that operate in some cases have intrigued those concerned with the psychophysiological and neurophysiological aspects of the problem. For example, the *Visual Sensation and Perception Tests* of the Betts *Ready to Read* Battery and pure-tone audiometers for individual testing have contributed to broader understanding of reading problems. These latter tests met some opposition in the beginning from specialists because of a misunderstanding. When the specialists were informed that these tests were developed to *screen out* or *detect* rather than to diagnose functional disabilities, they indicated a willingness to co-operate with educators and school psychologists. Co-operation has been furthered by the additional understanding that an appraisal of *vision* and *hearing* is made by these means rather than the examination of *eyes* and *ears*. While substantial progress has been made on developing techniques for estimating reading capacity, no single test or device has provided the final answer.

Criteria for estimating capacity level include:

I. A minimum comprehension score of at least seventy-five per cent, based on both factual and inferential questions

II. Accurate pronunciation of words comprising the general and special vocabulary

III. Precise use of words in describing the facts, or experience

IV. Ability to supply from experience additional pertinent information on the problem under consideration

V. Ability to use language structure in oral discussion as complex as that used in the selection in question

Ground for Rapid Gains. When a substantial difference exists between instructional level and capacity level, it usually

indicates the possibility of rapid gains. For example, Vincent's instructional level was estimated to be about primer level while his capacity level was estimated to be about eighth-grade level. In this instance, Vincent made about one grade of progress each week for the first two weeks As his capacity level was approached his rate of progress began to level off, or was slowed down. Patsy's instructional level was estimated to be about beginning preprimer level and her capacity level about high second-reader or third-reader level. Her progress through preprimer and the primer was very rapid, but her rate of progress was reduced as she approached the second-reader level In short, the difference between capacity level and achievement level usually is a fairly good indicator of the expected rate of progress. Other factors, however, must be taken into consideration in some cases

Test Materials

Classroom Reading Materials An informal reading inventory may be constructed on any type of material, especially when the *level of readability can be ascertained* To be most helpful, however, the inventory should be made with materials used in classroom reading activities. When an approximation of general level of reading achievement is needed, a well-graded series of basal readers is probably appropriate. Each area of learning, or subject-matter area, usually has a substantial vocabulary peculiar to itself, hence it is desirable to inventory reading performance in science, social studies, literature, arithmetic, and so on This problem of special vocabularies becomes apparent at the second- and third-grade levels where reading interests are extended and there is an *increasing need to read number stories,* school newspapers, science materials, and other materials that contain more than the general "core" vocabulary. At about the third- and fourth-grade levels, the special vocabulary problem becomes especially acute because of the very heavy reading burden of the instructional materials Fortunately, graded series of

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textbooks are available in all the major areas of learning, including current events. In brief, the content of the reading material selected for the inventory depends upon the content area with which the teacher or clinician is concerned.

This question is asked often, "Should materials which the child has read previously be used?" The questioner usually has in mind the possibility of securing spurious results because the child has memorized the material. Since comprehension is carefully checked by both factual and inferential questions in both a silent- and an oral-reading situation, memorization is quickly detected and this reading "crutch" is removed. On the other hand, a pupil may have an emotional bias toward a given set of basal textbooks because he has failed to achieve and, therefore, is supersensitive to his inadequacy. In this instance, other materials of instruction should be selected: hence, the "new" materials should be used for the inventory. In general, however, a fairly satisfactory inventory of reading performance can be made with materials which the child has "read" before.

Each unit of test materials should be of sufficient length to appraise adequately specific abilities and skills. As the difficulty of readability is increased, longer units of material should be used. This requirement is usually met in graded series of textbooks, for the units increase in length at each succeeding reading level.

1. *Basal Readers.* There are at least fourteen series of basal readers designed for use in elementary schools. These materials are of four general types: First, books based on story-type material such as the *Alice and Jerry* books and W. S. Gray's *Basic Readers: Curriculum Foundation Series.* Second, books based on content material—largely of a social-studies nature—such as Nila Banton Smith's *Unit Activity Reading Series* and Grace Storm's *Guidance in Reading Series.* Third,

learn-to-study readers such as Ernest Horn's *Progress in Reading* and Yoakam's *Reading to Learn.* Fourth, literary-type readers such as *Wonder-Story Books* by Huber and Others.

In selecting materials for the informal reading inventory, at least two factors should be considered. First, the type of content varies not only among the different types of readers but also among readers of a given type. Second, the content, authorship, and editorial policies will bring about variations in vocabulary.

The use of a basal series of readers for making a systematic inventory of behavior in reading situations has fully three advantages First, at least one basal series of readers is available in most classrooms Second, some attention to grading the readability of the materials has been given by the authors and the publishers. Third, since some control is exercised over vocabulary, it is often possible to observe pupil application of word-recognition skills upon a second encounter with a "missed" word.

There are some who may conclude that basal textbooks are being overemphasized when an informal reading inventory is used. Basal textbooks in reading, science, and social sciences are usually quite carefully graded; hence, they do provide a readily available source of materials in which several factors of readability are likely to have been controlled. Most progressive educators express concern about the regimented use of basal textbooks rather than about the content. In some instances, there appears to be just criticism, however, of the stilted and sometimes meaningless language resulting from attempts to control only mechanical factors that enter into readability, especially at the first-grade level. Both mechanical and semantic factors must be evaluated in the selection of "well-graded" materials for an informal reading inventory. In general, basal textbooks and reading materials do provide a readily available means for appraising reading needs, but test ma-

terials should never be used to dictate the "what" of instruction

2. *Newspapers.* One of the best ways to stimulate interest in reading and in social affairs is through the reading and study of current-events materials. In general, schools have been remarkably responsive to the necessity for adjusting the school program to changing social needs. One of the chief means of bringing these changes to the classroom is well-written material graded according to readability. Through mass production and school club rates, publishers have made it possible for schools even in remote areas to have up-to-the-week reading materials dealing with problems and issues affecting the lives of everyone. In view of this situation, both the teacher and the clinician should recognize the suitability of school newspapers and magazines as content for an informal reading inventory.

One of the most widely used weekly newspapers in elementary schools is *My Weekly Reader*, published in five editions with the readability controlled for use in grades one to six. For the use of "good" readers in the upper elementary grades, a number of magazines and newspapers are available, including *Current Science, Current Events, Scholastic, Reader's Digest*, etc. A series of magazines of graded readability can be used to estimate the four levels described herein.

Special attention should be given to basal and instructional levels of reading ability in connection with the use of current-events materials. If the newspaper or magazine is to be used for independent browsing, reading, or study, special attention should be given to the approximate basal-reading levels of the pupils in a class. On the other hand, the instructional levels should be approximated when the materials are used with groups in the class for directed reading activities. If the teacher has not acquainted herself with these basic facts regarding reading levels in her room, she has no basis for ordering appropriate materials to meet class needs. When the

same edition of a current periodical is ordered for each member of a class, the better readers are not challenged and the "poor" readers are frustrated. This may lead to the development of strong dislikes for reading material that could be supercharged with interest.

3. *Graded Textbooks.* Basal textbooks and reference books in science, social science, mathematics, and literature are very useful for appraising reading abilities at the elementary, secondary, and college levels. When basal readers are used through grades six or eight, a series of high-school social-studies textbooks is used often to secure a general index to reading ability at the upper levels.

GENERAL PROCEDURE

Principles Underlying an Informal Reading Inventory. In general, the procedure for the administration of an informal reading inventory for the systematic observation of performance in controlled reading situations is based on the principles governing a directed reading activity. Three of the principles pertinent to this type of test situation may be briefly summarized. First, a readiness for the reading of a given unit of material should be developed. That is, the new unit of reading matter must be related to past experience, and a general motive should be established for the reading. Second, silent reading should *precede* oral reading. During this silent reading, mechanical and semantic blocks to accuracy and depth of comprehension should be identified by the reader. Third, rereading—whether silent or oral—should be motivated by new purposes. An exception to the principles basic to a directed reading activity is that of using oral reading at sight (i.e., without previous silent-reading preparation) as one means of appraising reading performance. This does have, however, the advantage of uncovering responses to printed symbols that might be undetected in a well-directed reading activity. In the main, the principles governing procedures em-

ployed in directed reading activities are observed for two reasons: reading performance reflects previous instructional procedures which may have contributed to the learner's reading problem, and the validity of the inventory is enhanced by basing observations on performance in recommended first-teaching and remedial-teaching situations.

Informal Procedure. An informal reading inventory may require from five minutes to one half hour, depending upon the age of the pupil, the level of reading ability, the complexity of the problem, the length of the examiner's acquaintanceship with the individual, and the ease with which rapport is established. In the classroom, the teacher can observe daily behavior in reading situations and, therefore, may need only a few minutes for an individual inventory. It is likely that sufficient information regarding the reading problems and needs of most children can be obtained from careful observations in class and small-group situations. In a clinic, a full half hour may be required for the inventory.

In the test situation, the pupil should hold the book. This permits the examiner to observe the reading position and the distance at which the book is held. Furthermore, the examiner is free to record findings as unobtrusively as possible.

The following is a general description of the procedure for appraising reading achievement by means of an informal reading inventory.

1. *Oral Reading at Sight.* This is done with a series of short selections of graded difficulty to appraise reading behavior in a situation where the pupil is without benefit of preparation. The point at which a systematic appraisal of the basal level is to be made may be quickly determined. In addition, tendencies toward faulty reading habits may be induced by oral reading at sight. The reading is done in response to a general motive question and comprehension is appraised by after-the-reading questions.

2. *Silent Reading Guided by Single Answer Questions.* When a more nearly complete appraisal of comprehension is deemed necessary, this is made by asking the pupil to begin with the first part and tell what can be remembered.

3. *Oral Rereading.* This may be done in at least two ways as the occasion demands: First, the oral rereading of a word, phrase, sentence, or larger unit that gives the answer to the silent-reading question. This is sometimes done as a check immediately following the silent-reading question. Second, the oral rereading of the entire test selection in response to a general motive question.

When it is necessary to short-cut, the oral reading at sight of short selections is used only to identify the probable point, or level, at which basal level is appraised. The remainder of the inventory is based on guided silent reading and oral rereading, as in a directed reading activity. Additional time may be saved by terminating the inventory of achievement with the establishment of instructional level. While the determination of frustration level does have instructional implications, chief consideration should be given to the level at which independent reading may be done and at which directed reading instruction is most fruitful.

After reading performance has been evaluated, an index to reading capacity is obtained by reading to the child and checking on comprehension by means of carefully prepared questions. Time may be saved by terminating this part of the inventory at what might be called the basal hearing-comprehension level. This is the first level at which there is exhibited an inability to deal with the complexity of the constructs, or ideas, the vocabulary and language structure, or with the facts, or information.

Details of Procedure. The procedure for administering an informal reading inventory may be detailed as follows:
I. *Selection and Organization of Material.* Reading materials that meet at least

three criteria should be selected. First, the material should be within the interests of the learner. When it is not possible to live up to this criterion, extra motivation must be supplied in the test situation. Second, the material should be graded in readability. Third, the content of the material should be the same as or closely related to that available in the classroom situation.

It is highly desirable, although not essential, to have two copies of the selection available. The pupil, of course, should read directly from the book, bulletin, newspaper, or magazine. A second, preferably reproduced, copy of the selection should be available for the examiner. To test rate of reading, it is a timesaver to have a cumulative listing of the number of words in each line. For example, after line 1 indicate the number of running words in that line; after line 2 the number of running words in lines 1 and 2; and so on. If the material is double- or triple-spaced with perhaps double spacing between words, the examiner may record omissions, substitutions, repetitions, failure to interpret punctuation, and other evidences of faulty reading performance. Testing and recording of results is sometimes facilitated when each line of print is numbered consecutively on the left-hand side of the context.

II. *Check of Comprehension* In a highly desirable learning situation, the pupil *does the questioning.* That is, the learner asks the questions and sets up the problems to be solved during the reading activity. Furthermore, the purposes are established *before* the reading is done. Because of time limitations and the necessities of the controlled test situation, the examiner usually checks comprehension by means of carefully prepared factual-and inferential-type test questions. When this is done, the procedure can be standardized to compare the reading achievements of individuals. Sometimes, however, the entire reading inventory is administered on a strictly informal basis, by asking on-the-spur-of-the-moment questions to check comprehension. This also has its advantages; the whole procedure is likely to become more nearly personal and less formal. In this informal reading inventory, *the reading is motivated and guided by the examiner's questions.*

It is not unusual for a child to improve his comprehension score after the first test selection has been used. This is especially true of children who have fallen into the habit of calling words in their reading "lessons." Carefully checking on comprehension, then, is important.

Time is saved by typing the questions to check comprehension in each reading situation on a five by eight inch card or piece of oak tag. Each test card then is inserted at the appropriate page in the textbook.

A *Oral and Written Responses.* In this discussion of the informal inventory, oral responses have been emphasized, but under certain circumstances written responses may be used to an advantage. If the pupil has less than primer or first-reader level reading ability, he is not likely to have much spelling ability and hence cannot write. Written responses can be used to check the number of accurate constructs, or ideas, the pupil can recall, the accuracy of the sequence of constructs, and the ability to organize. In addition, the examiner may observe tremors in handwriting, motor control, spelling errors, and the like. At higher levels of performance, special attention should be given to the student's organization ability. Written responses are especially suitable to group testing. In short, either oral or written responses may be required, dependent upon the purpose and the type of situation.

B *Aided and Unaided Recall.* Comprehension may be appraised by means of aided or unaided recall test items. If the pupil is asked, "Is the color of the kitten black, white, or yellow?" he may be aided in his recall. On the other hand, unaided recall is required when he is simply asked, "What is the color

of the kitten?" Unaided recall questions are recommended in connection with the informal reading inventory, unless information obtained from aided recall is desired.

C. *Single-Answer Questions and Sequential Recall of Details.* Two techniques are used commonly to appraise accuracy of comprehension: First, a series of questions each of which may be answered in a word, phrase, or sentence. Second, a single question which requires the pupil to reproduce what he has read. Each technique will reveal needs not brought out by the other.

The single-answer type of question lends itself to guiding the first silent reading and the oral rereading when evaluation of details is of chief concern. Emphasis is placed on this technique by the writer and his students.

Inexperienced teachers and clinicians sometimes fall into the undesirable habit of unnecessarily repeating questions and the pupil's answers. This practice discourages pupils from listening carefully and encourages "sloppy" answers. While the repeating of questions and answers is not condoned in instructional situations, it is to be condemned in a test situation where the examiner should be particularly interested in appraising oral language facility.

A double check on the validity of a response to a guiding question in silent reading can be made by saying, "Read aloud the sentence that tells you the answer." In addition to being a recheck on silent-reading comprehension, this is a sound means of motivating oral rereading. Frequently, the content is so "thin" at the lower levels, especially in preprimers, that this recheck device is necessary in order to appraise adequately reading performance.

Some recommendations regarding the preparation of single-answer questions for checking comprehension are listed as follows:

1. Use questions that must be answered from the reading matter rather than from experience. However, there will be an occasion to use questions which tap background of experience, especially when estimating capacity.

2. Use questions that have only one answer, as stated in the reading matter. For example, avoid such questions as "Where was Tom going and why?"

3. State the question so that a parroting of the exact wording in the book is not required. A stimulating question should require the reader to reorganize his experiences. In one of the primers used by the writer, there is a story about Mary's kittens that "run and jump and play." To ask, "What three things do the kittens do?" or "What do the kittens do?" may elicit only a parroting of the exact words of the book. To ask, "Are the kittens lively or lazy?" and to recheck by, "What sentence tells you the answer?" requires some reorganization of experience.

4. Avoid "catch" questions. Misleading irrelevances should be avoided by asking direct questions that are clearly worded and concise.

5. Use interrogative- or imperative-type questions. Do not combine the two types in one question. For example, "The name of Peter Cooper's locomotive was what?" creates the wrong mind-set by beginning with a statement and ending with a question. It would be more direct to simply ask, "What was the name of Peter Cooper's locomotive?"

6. Adapt the questions to the learner's maturity level. Simple facts described in complex language can frustrate comprehension. Good questions challenge attention.

7. Ask sequential questions, especially for guiding the first silent reading. One question should lead into another. This will facilitate checking on knowledge of vocabulary and on background of information by separating such in-

formation for diagnostic questions. Furthermore, the use of sequential questions preserves the unity of the selection

In one primer used in the Reading Clinic is a story about kittens. When Mary went to school, the kittens climbed out of their basket and ran to the open door. Tabby, the mother cat, came running after them and carried them, one by one, back to their basket For this story the following questions are used to check comprehension and guide the silent reading: What did the kittens do? Where was Mary when the kittens ran away? Where did the kittens run to? Who stopped the kittens from running away? Where did Tabby carry the kittens? How many kittens did she carry on each trip to the basket? What is the difference between a cat and a kitten?

After each question has been stated, the pupil should be given an opportunity to reflect on the selection, to evaluate the material in terms of the question, and to organize an answer. Rapid-fire questions may disorganize some pupils Sequential questions, then, may be used to guide the pupil in his deliberation over the meaning of a selection

8 Avoid the use of questions that require simple "yes" and "no" responses For example, "Can you find the sentence that answers the question?" may be stated "Point to the sentence that answers the question," or "Read the sentence that answers the question"

The sequential recall of details is an excellent means of appraising the pupil's ability to recall without aid the order of events in a given selection When this type of comprehension check is used, the pupil's mind-set may be established by directing, "Read this and tell me what you read " After the reading is completed, the pupil is instructed, "You did very well. Now begin with the first part and tell me everything you can remember." A rec-

ord is then made of the number of constructs, or ideas, remembered from the selection, the sequence, the accuracy of retention, and the vocabulary and language structure used.

D. Delayed and Immediate Recall. Since time limits are short for an individual inventory, emphasis is placed on immediate recognition of facts and on immediate recall. It is important, too, to check on the pupil's ability to recall what he has read after a period of time has elapsed One index to delayed recall may be obtained by postponing the comprehension check until after the reading of other selections. Where mental immaturity may be a factor in the reading difficulty, this would be a desirable means of checking retention.

E. Vocabulary. When probable reading capacity is estimated, special attention should be given to knowledge of vocabulary In general, a well-developed vocabulary test correlates very well with tests of general intelligence In fact, some studies have showed that scores on well-constructed vocabulary tests correlate as high with certain intelligence tests as many intelligence tests correlate with each other. After summarizing certain studies on this problem, Dr J. Conrad Seegers and his committee concluded (50, p. 20): "It would appear, therefore, that there is a high degree of correspondence between progress in acquiring either a general or a specialized vocabulary and intelligence."

From available evidence, it appears that vocabulary depends to no small degree on breadth and depth of experience While each individual has his own "saturation" point beyond which vocabulary probably cannot be developed, experience with facts generally will be reflected in richness of vocabulary. The varied experiences of individuals and deviations of general mental ability may be expected to contribute to wide variations in vocabulary control.

From the above, it is clear that steps

should be taken to appraise control over vocabulary at each level. This may be done quickly by asking the pupils what a word means or by requesting them to use it in a sentence. Here are some sample test items used by the writer: Point to the *gunwale* of the boat in the picture. What does *"deserted* fox hole" mean? Why is the skunk called a *nocturnal* animal? What kind of *cereal* do you eat? What does "bring in the ship" mean? Use the word *creature* in a sentence.

F. *Versatility.* Questions used to check on comprehension also should be designed to appraise versatility in shifting from one type of reading to another; that is, skimming, rapid reading, and study-type reading. Varying the rate of reading and the skills employed is an important achievement and, therefore, facility in this respect should be appraised. Examples of questions used for this purpose include. On what page can you find out what to feed a cat? How did Lightning earn his living? In what corner of the room did the Fearless One have his bed? The first question can be answered by skimming; the second, by a rapid reading; the third, by reading for details.

G. *Rate of Comprehension.* In general, the rate of comprehension may be expected to decrease as the individual proceeds from the basal-reading level to the frustration level. Here, though, the examiner must be on the alert to appraise the rate at the different levels under similar conditions. Rate is influenced not only by the level of readability of the reading matter, but also by the familiarity of the content, by the types of reading ranging from the cursory to the intensive, by interest, and by other factors. For example, Huey (37, pp. 174–175) reported that selected adults did "ordinary" reading at rates varying from one hundred and fifty to five hundred and eighty-eight words per minute and rapid reading at rates varying from two hundred and ten to eight hundred and ten words per minute.

An experienced examiner probably can estimate the rate of reading to be slow, average, or fast from observation. Inexperienced examiners may be aided in their estimations by clocking the time in terms of the number of running words read a minute. This can be done in two ways: First, by determining the number of words read in a given period of time. Two or three minutes provide a reasonable basis for estimating rate. Second, by determining the amount of time required to read a given selection. Regardless of which means is used, a measure of rate of *reading,* not mere rate, is desired.

H. *Factual and Inferential Questions.* Mere recall of facts provides an index to accuracy of comprehension. For example, "Taking Care of Dogs" is the topic in one third reader. By asking, "What five foods are you told to feed your dog?" the examiner sets the stage for the recall of facts. In this instance, the answer is, "Dog biscuit, scraps of meat, vegetables, cereal, and brown bread." Accurate recall of facts is one check on understanding and retention.

To appraise quality and depth of comprehension, however, it is desirable to interrogate with inferential-type questions or to give the pupil an opportunity to express his between-the-lines reading. In the selection mentioned in the preceding paragraph, the reader is told to feed a dog one good meal a day, but in cold weather two meals a day. Understanding of this information can be appraised by asking, "How many meals a day should a dog have in July? In January?" While these may be described as low-level inferential-type questions, more than the parroting of the words of the book is required.

Inability to organize information read in response to a question may be indicative of a low level of mental maturity or of a faulty question. As pointed out by Dr. George Strayer (51, p. 118):

It may be said that questions which call for the use or organization of facts demand

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not only the knowledge demanded by the question, but the more significant use of the data.

The *diagnostic significance* of the questions may be enhanced occasionally by first appraising the pupil's ability to recall the facts accurately. When the facts are recalled correctly, the inability to answer a carefully stated inferential- or thought-type question may be an indication of inability to perceive relationships between the facts. In this connection, it is assumed that the ability to note relationships is based on a clear statement of the facts.

III. *Establishment of Rapport.* Working relationships in the test situation are of prime importance. First, the examinee should have confidence in and respect for the professional competence of the examiner. In turn, the examiner should have genuine respect for the personality of the examinee. In brief, good mutual working relationships must exist, because, after all, this is a learning situation for both parties. Second, the examinee's effort should be enlisted in the test situa-

tion through a lucid explanation of the purposes of the inventory and the means employed. It is highly desirable, in the have *rapport between examiner* and examinee and between the examinee and the test situation.

There are children so conditioned against books and reading in general that they "freeze" at the sight of a book. This situation requires considerable tact and judgment on the part of the examiner and further emphasizes the need for establishing rapport between the examinee and the reading situation. Patsy had received excellent school marks on her first-grade home reports. The first-period home report from the second-grade teacher brought the sad news that Patsy was failing in reading and spelling. When she was brought to the Reading Clinic, one of the first steps was to have been the administration of an informal reading inventory. However, when the first book (a preprimer which she had not seen before) was opened she immediately slumped back in her chair with a terrified expression and brought her

hand jerkily up to cover her mouth in shame. She then further withdrew with the flat statement, "I don't want to look at that!" Patsy had evaluated the situation in terms of her past inadequacies and used these means of retreating. Her *composure was re-established during the administration of a reading-readiness test* on which she was highly successful. After she was challenged to see how fast she could *learn* to read a new book, she demonstrated her ability to master readily the vocabulary and skills of a preprimer. When *her father called for her, she ran* toward him with the exclamation, "Oh, Daddy! Now I can read." Within three weeks of systematic instruction, Patsy returned to a regimented second grade, was placed in the "best" group, and has maintained that standing for two years

Procedures that the teacher may follow in establishing rapport are listed here.

A. Inventory the Pupils' Interests. The alert classroom teacher is usually in a superb position to know her pupils and, therefore, to short-cut this step in the inventory procedure. In any event, it is crucial for the examiner—whether teacher or clinician—to have some information on learner interests.

The age and the extent of the reading disability of the examinee will dictate to some extent the discussion regarding dominant interests Many children in the primary school may have highly transitory interests while a substantial number of children in the intermediate and upper elementary grades may be expected to have developed some fairly permanent interests.

Children in the primary school may display varying degrees of interest in *rhymes, verse, poetry,* and *stories.* Some may be unfamiliar with the classics of children's literature, while others may enjoy reciting numerous selections. Furthermore, interests may be modified by home and school experiences with literature, by level of reading ability, and by emotional maturity. Indexes to background of this nature may be quickly obtained by asking: Do you like to hear stories (or poems) read? Do you like to look at picture books? Do you read books? What else do you like to read? What do you like to read about? Do you read every day? What are some of the books you own? Which ones do you like best? What stories do you know well enough to tell? Would you like to learn to read? Questions of this nature can be used to establish rapport by opening up channels of discussion.

Children above the primary grades usually exhibit a still wider range of experiential backgrounds and reading levels. Some of the questions used at the primary-school level may be used again at this higher level. Additional information may be obtained by these questions· Do you like to read? What are your favorite books? What parts of the newspaper do you read? What magazines do you read? What do you like to read about (e g, airplanes, mysteries, people, adventures, other lands, pioneers, popular mechanics, etc.)? What school subject do you like best? What school subject do you dislike most? The background for these interests may be evaluated from information obtained from questions like these: When do you do your homework? Where do you do your homework? What is your most interesting hobby? In how many places have you lived? Where? What are the most interesting places you have visited? Where do you spend your vacations? What do you do during your vacations? To what radio programs do you listen? How many movies have you seen in the last two weeks?

Past experiences often provide important clues to dominant interests Vincent's family, in roaming about several northern and southern states, had put him in contact with scientists interested in butterflies. He had collected and mounted fine specimens, and in spite of his "preprimer-level" reading ability had managed to accumulate a

over and discussing the illustrations, and by a general motive question. For example, one of the selections used by the writer deals with the feeding of dogs. These questions are often used to stimulate interest: Do you have a dog? What do you feed your dog? Let's read this to find out what a dog should be fed.

IV. *Estimation of the Starting Level.* There are at least two quick means of estimating the reading level at which the inventory is opened. First, children who have exhibited a very low level of reading ability may be checked quickly by means of an isolated word-recognition test. A random selection of fifteen words from the preprimer level and twenty words from the primer, first-reader, and second-reader levels may be used as pronunciation lists. While an occasional pupil may be able to pronounce words and still be unable to read satisfactorily, an isolated word-recognition test is fairly satisfactory for estimating the starting point at very low levels. Second, the oral reading of short units at sight from successive levels is another means of determining the starting point. When this procedure is used, steps should be taken to appraise comprehension. At the first sign of reading difficulty, the oral reading at sight should be discontinued for a check on basal-reading level This first sign of difficulty may be a sly use of the thumb or a finger as a marker, a word substitution or omission, a hesitation on the pronunciation of a word, a failure to look ahead for interpretation of punctuation, or a lowering of comprehension. In general, the starting point can be estimated in two or three minutes.

V. *Estimation of the Basal Level.* The next step is to estimate the highest level at which the individual can read silently and orally without manifesting symptoms of difficulty. This is done first by guiding the silent reading of a small unit (e.g., a paragraph or two) by questions. In response to each question, the examinee reads until he finds the

right answer. The question should be so phrased that the exact words in the book are not required for the answer. During the silent reading, the examiner observes behavior and records any evidence of difficulty, such as lip movement and finger pointing. Oral rereading is used as a double check For example, the examinee is asked to read the sentence, or sentences, that give the answer. A second step is reading at sight orally from the next paragraph, or paragraphs, to make certain that the basal level is established.

By observing the reader's eye movements, the examiner may obtain some information on the eye-voice span. An individual with a wide eye-voice span will have the eye directed ahead of the words which are being pronounced in oral reading A confusion of eye movements and the directing of the eyes toward the words being pronounced is indicative of a very narrow eye-voice span. At the basal-reading level a wider eye-voice span may be expected than at the instructional level. Problems of word recognition and comprehension reduce the eye-voice span to the zero point as the frustration level is approached.

In general, rate and comprehension are highly related. Rapid readers may attain greater achievement in comprehension than slow readers. For example, at the fifth-grade level Robert read a given selection at a rate of more than eight hundred words per minute with a comprehension score of one hundred per cent, while Esther read the same material at thirty-nine words per minute with a comprehension score of only twenty per cent. In this instance, Robert's eye movement record showed consistently three progressive fixations per line while Esther's showed as many as thirty progressive and regressive fixations This is easy to understand. In spite of the fact that Esther had average intelligence, her lack of word-recognition skills caused her to become so confused by pronunciation difficulties that comprehension was defaulted. Esther was

rapport has been established with the examinee, he often will express keen and profound regret as his inadequacies become apparent. This is especially true when frustration is induced by the vocabulary burden.

It has been observed by the writer and his students that frustration sometimes is intensified more in some classroom situations than in the inventory situation. This is more likely to be true in highly regimented classrooms where there may be "respect" for the teacher but very little desirable rapport between teacher and pupils and among pupils. Personality also must be considered in comparing results among frustration findings taken in class, group, and individual situations. Children vary considerably in aggressiveness, self-sufficiency, outgoingness, and the like.

At the frustration level, the obstacles in the reading materials cannot be overcome or circumvented by the reader. If instruction is initiated at this level, emotional conflicts accumulate rapidly *and* the reader loses sight of his goals. In short, the pupil is foiled in his attempt to achieve

VIII. Estimation of the Capacity Level. The next step in the use of an informal reading inventory is that of appraising hearing comprehension—sometimes called reading capacity. This finding can be taken by reading the materials to the pupil and checking on comprehension by means of factual and inferential questions. In this manner, level of hearing comprehension can be determined grossly and the teacher is given a means of estimating capacity for reading achievement.

Before the oral reading of the selection, the examiner should take definite steps to enlist the listener's interest. First, the listener should be appraised of the general nature of the content. For example, the material may cover the topic of "how to care for a dog" or "Eli Whitney's invention of the cotton gin." Second, a general motive question should be stated to direct the listener's attention *to the purpose of the selection. For example,* the question may be stated: *"What does the author tell you to feed a* dog?" or "Why was the cotton gin invented?" Third, attention should be directed to the details by informing the

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listener that specific questions will be asked about what is to be read.

Mental maturity is one prerequisite for reading. Many five- and six-year-olds may have only about a low-pre-primer instructional level. Then, again, older children characterized by general mental retardation may be unable to read much more than a very easy pre-primer. In these instances, no basal-reading level can be established. The examiner should be on the alert to detect mental immaturity. For example, Illene, age fourteen, persisted in giving her answers in the *words of the book*. After reading about Mr. Brown's little girl, Sally, she couldn't tell who Sally's father was. Mr. Brown and Sally had been on the airplane ride with Mary *too*, but Illene was unable to interpret the *too*. She could, however, reproduce many of the facts. Her chief difficulty was the relating of the facts. Both the examiner and the observers were satisfied with the conclusion that Illene was handicapped by a lack of mental ability. This was verified by means of a reading-readiness test. Her Binet score indicated an I.Q. of 62. An experienced examiner has many opportunities to detect evidences of mental immaturity.

From tests of hearing comprehension and of general intelligence, it was apparent that Fred had above-average reading capacity. In this respect, Fred's responses were far superior to Illene's. While Illene could recall only a few fragmentary facts about what was read to her, Fred would open up and supply *the setting for a unit of reading matter*. Fred was extremely retarded in reading but he had been a keen observer and an intelligent listener. Furthermore, his oral-language ability was of a high order. Fred and Illene were the same age, but Fred's capacity to profit from systematic reading instruction was far above Illene's.

Billy had failed to be promoted from the first grade for two consecutive years. Each year Billy was taken through pre-primers, primers, and first readers and at the end of each year he was unable even to pronounce more than ten words in the first preprimer. By reading to Billy from first-grade reading materials, the examiner learned that he did not have sufficient oral-language facility or background of information to discuss what was read to him How could the teacher expect Billy to profit from reading instruction when he did not evidence even gross readiness? The fact was that the teacher had no techniques for appraising readiness. Reading readiness was an abstraction that her colleagues and professors "talked about." This technique of appraising hearing comprehension by reading to the child should be mastered by all elementary-school teachers.

Responses to *visual* symbols have been described in this discussion in terms of basal, instructional, and frustration levels. Teachers and clinicians particularly interested in responses to *oral* symbols may use a similar means of description. For example, the basal level of hearing comprehension would be the highest level of readability which could be understood by the listener; instructional level, the point at which control over language-facts might be profitably improved; and frustration level, the point at which the readability of the material is too far remote (i.e., too abstract) from the listener's previous experiences for reasonably immediate comprehension. In this discussion, reading capacity is considered to approximate the basal level of hearing comprehension.

IX. *Recording of Observations.* Several considerations should be made in devising a means for recording observations of reading performance. First, some type of permanent record should be made of the observations. A busy teacher or clinician cannot be expected to keep in mind all the necessary details about the reading needs of each individual in a class or a clinic. Second, a simplified form should be devised which will reduce to a minimum the amount of note taking re-

quired during the testing Recording observations should be done as unobtrusively as possible. An excessive amount of note taking may become a barrier to rapport Third, the recording of the responses should be sufficiently descriptive to have high diagnostic value. For example, a low rate of reading may be occasioned by inadequate control over word-recognition skills, by general slow reaction time, by a lack of versatility in adjusting reading rate to the purpose of the reading, and so on Fourth, the recording form should include some means for very briefly indicating the examiner's estimates of basal level, instructional level, frustration level, and capacity level When the independent-reading level is above the basal-reading level, space should be available for recording that estimate

A Record Exact Source of Test Material
In estimating the reading level, especially from materials designed for use in the primary grades, the examiner should make a note regarding the part of the book used For example, primer-level reading ability, as used by the writer, is determined from materials in the last part of the book The first few units of a primer may be very little more difficult to handle than the last units of the preceding preprimer With the exception of the first preprimer, the first part of a given book may be used to verify conclusions reached from the use of the last part of a preceding book

It also is important to record the title and estimated grade level of the materials used. Findings taken from one set of materials may not be indicative of level of achievement and needs in another type of reading situation

B. Use a Systematic Means of Recording
Suggestions for recording observations from informal reading inventories have been given in courses of study, teachers' manuals, and other professional publications for many years Probably one reason why informal inventories have not been used more widely is that insufficient help has been given on the procedure and interpretation of the results. The use of a systematic means of recording the findings is necessary in clinic and classroom situations in order to inventory needs and to establish an awareness of small increments of progress These findings then can be used to guide the learner and to direct further instruction

There are two widely used means of recording the results of an informal reading inventory: first, a diagnostic chart for checking positive findings (i e , observed difficulties); second, a special reproduction of the test selection for recording responses. Diagnostic charts are arranged for recording individual findings in either an individual- or group-test situation. Reproduced test selections are, of course, designed for recording individual findings. Each of these devices for recording the findings is used in a number of forms Both devices are useful in discovering the needs of pupils as well as in noting their achievements

1. *Diagnostic Charts.* In 1922, Dr. Clarence Truman Gray of the University of Texas published his Diagnostic Sheet for recording observations of reading behavior (32, pp. 348-350). Gray's Diagnostic Sheet is simply a list of sixty-one items of behavior organized under the following sixteen headings: Rate of oral reading, rate of silent reading, omissions in oral reading, insertions in oral reading, mispronunciations in oral reading, substitutions in oral reading, quality of oral reading, comprehension, faulty eye-movements, breathing, rate of vocalization, amount of vocalization, extraneous movements, vocal movements, span of perception, and voice-eye span

Each type of response made by the pupil is checked.

The following is a sample of Dr. Gray's breakdown of the first item and of his recording for one case.

DIAGNOSTIC SHEET

	This Pupil
I. Rate of Oral Reading	
1. Lack of Assimilative Power .	X
2. Slow Rate of Vocalization	.
3. Lack of Familiarity with Language Forms	X
4. Short Span of Preception	X
5 Too Great Dependence upon Objective Cues	
6. Overcare … .	

Many variations of the above type of recording form have been described in professional literature dealing with observations of reading behavior. For example, when a given group of children is tested with the same selection, a column is given to each pupil on the same diagnostic sheet. Since 1925, the writer and his students have used a form for recording the *positive findings on individual cases for each level of reading in both silent- and oral-reading situations.* This means of recording has the advantage of providing a permanent record of a given individual's difficulties at preprimer, primer, first-reader, and higher levels. A record of this type may be interpreted by other teachers and clinicians and, therefore, may be used as a basis for estimating progress. Charts designed by the writer for use in recording results of the informal reading inventory will be found on pages 472 to 475.

2. *Duplicate Test Selections.* A direct recording of observations can be made on a specially prepared duplicate copy of the test selections. Suggestions for the use of this means of recording were given in a preceding section of this discussion under the heading "Selection and Organization of Test Material." By using a homemade shorthand system of recording responses and observations, the examiner may make an on-the-spot record of reading behavior. For example, a solid line may be drawn through an omitted word, an "x" may be used to designate omitted punctuation, solid under-lining or vertical lines may be used to show words included in each phrase, a vertical arrow may be drawn to indicate a high-pitched voice, and so on. An excellent description of reading performance can be made on a duplicate of the test selection.

LIMITATIONS OF AN INFORMAL INVENTORY

The use of an informal inventory for the systematic appraisal of reading needs has several very real limitations. Some of these may be briefed as follows:

Professional Competency of Examiner. The reading inventory described herein is a combination of pedagogical and psychological techniques. For example, the estimation of achievement level and the observation of needs at that level require considerable background in language education while the estimation of capacity level is facilitated by a background in clinical and educational psychology. The degree to which this set of techniques can be used effectively depends largely on the professional competency of the examiner. Since, however, there is general agreement on the premise that instruction must be based on a thorough understanding of learner needs, it would appear reasonable to conclude that the professional competency of a teacher or a school psychologist may be safely evaluated, in part, on control over such practicable techniques.

A high level of professional competence is seldom, if ever, required for the administration of standardized tests, especially group tests of achievement. However, the writer has found that considerable discussion, observation of demonstrations, and practice is necessary for seniors and graduate students to acquire proficiency in the use of the informal reading inventory described herein. As standards for the professional preparation of teachers and school psychologists are raised, professional competency should become less serious as a limitation of these techniques.

The following is a detailed form used by inexperienced examiners:

Name .... Grade .... Date . . ..

City .... School .... Examiner .. ..

INFORMAL INVENTORY SILENT READING

Directions (1) Under "Level of Readability of Selections" indicate by P.P. (preprimer), P (primer), I (first reader), II (second reader), etc Use first column for basal level (2) Use X to indicate undesirable behavior at each level For items such as vocalization, finger pointing, head movement, and tension movements indicate by abbreviations the intensity of the symptoms For example, O (occasionally), F (frequently), C (continuously). (3) Estimate rate as S (slow), A (average), or F (fast).

DIFFICULTY	Level of Readability of Selections					
1 Comprehension						
1 Objective test score						
2 Inability to state main idea						
3 Inaccurate recall of details						
4 Inaccurate recall of sequence of ideas						
5 Faulty inferences						
6 Lacks versatility						
2 Rate						
1 Objective test score						
2 Estimated rate						
3 Location of Information						
1. Inability to use Table of Contents						
2 Inability to use Index						
3 Inability to use Glossary						
4 Inability to use Dictionary						
4 Vocalization						
1 Silent lip movement						
2. Whispering						
3 Low vocal utterance						
4 Oral reading only						
5 Finger Pointing						
6 Head Movement						
7 Tension Movements						
1 Hands						
2 Feet						
3 Legs						
4 Body						
8 Posture						
1 Book too close						
2 Book too far						
3 Book at an angle						
9 Visual Inefficiency						
1. Frowns						
2 Squints						
3 Blinks						
4 Rubs eyes						
5. Shades eyes						
6 Print blurs						
7 Print doubles						
8 Covers one eye						

The following is a form used in the writer's reading clinic:

Name .. . Age Grade Case Number

Examiner ... . Date Hour . .

INFORMAL READING INVENTORY

A. Preliminary Interview: (Subjects liked best and least, books being read, type of reading instruction; purpose of this inventory, pupil description of difficulty.)

B. Materials Used.
    1. Elementary: 2 Secondary

C. Word-Recognition Test.   D Estimated Levels

Level	*Score*	
....		Independent level •
....- .		Instructional level ..
...- .		Frustration level .
...		Capacity level .
... ..		Estimated I Q .

E. General Responses to Test Situation:

F. Possible Case Typing:

G. Summary of Specific Needs:

H. Prognosis:

Level: ...   Word Recognition

    A. Oral at sight: (Pages   )   *Stimulus*   *Response*
        1. Comprehension: 1.   2.   3.   4   5
                6.   7.   8   9   10.
        2. Rate:
        3. Symptoms.
    B. Guided silent reading: (Pages   )
        1. Comprehension: 1. ... 2.   3 . 4.   5. .
                6.   7.   8. . 9.   10. . .
        2. Rate:
        3. Symptoms·
    C. Oral rereading: (Pages .)
        1. Comprehension· 1.   2. . 3.   4.   5. ..
              6   7. . 8. . 9.   10. ..
        2. Rate:
        3. Symptoms

Level: ..   .Word Recognition .

    A. Oral at sight: (Pages   )   *Stimulus*   *Response*
        1. Comprehension. 1   2.   3. . 4.   5. .
                6   7. . 8. . 9.   10.
        2 Rate·
        3. Symptoms·
    B. Guided silent reading. (Pages .   )
        1. Comprehension: 1.   2   3. . 4   5. .
                6   7.   8. . 9. . 10. ...
        2 Rate:
        3. Symptoms·
    C. Oral rereading· (Pages   )
        1. Comprehension: 1   2.   3.   4.   5. . .
                6.   7.   8. . 8. . 10
        2. Rate:
        3. Symptoms:

SUMMARY

1 Independent Reading Level
2 Instructional Level
3 Frustrational Level
4 Capacity Level
5 General Reaction Time slow   , average   , fast   ..
6 Chief Interests
7 Emotional Reactions co-operative   , indifferent   , enthusiastic   , fearful   , shy   , aggressive   , sullen   , negativistic   , rebellious   , confident   , overconfident   .
8 Speech stuttering   , cleft palate   , lisping   , infantilism   nasality   , oral inactivity   .
9 Comments

The following is the type of form used by experienced examiners.

Name   Grade   Date

School   *Examiner*

Test Materials

1 Independent Reading Level
2 Instructional Level
3 Frustration Level
4 Capacity Level
5 Chief Interests
6 Attitude
7 Type of Case 1 Reading readiness   2 Nonreader   3 Retarded reader
      4 General academic retardation   5 General mental retardation
      6 General language disability   7 Verbalizer   8 Defective study habits
      9 Foreign-language handicap   10. Emotional disability   . 11. Neurological involvement   12 Visual disability   13 Auditory disability   . 14. Glandular imbalance   15 Nutritional deficiency
8 Specific Findings

Level	*Observed Difficulties*

A more complicated recording device is a scale often used for rating personality. This has the advantage of graphically describing the individual's reading profile. A sample of this type of recording device is shown below

1 Vocalization					
	Oral Reading Only	Low Vocal Utterance	Whispering	Silent Lip Movement	None
2 Head Movement					
	Excessive	Frequent	Occasional	Seldom	None
3. Finger Pointing					
	Continuous	Frequent	Occasional	Seldom	None

diversity of phrasing situations, to use a number of word-recognition skills, and so on. Fifth, the part of the book from which the test selection is taken may be a factor in explaining inconsistencies between the gross findings of two examiners. Of course, it makes a difference whether the reading is done in the first part or the last part of a book. Sixth, the rapport established in the inventory situation may influence the results. Tensions may increase or decrease over those manifested in the classroom situation and, therefore, modify the reading behavior. These six, and undoubtedly other, factors must be recognized when the results of a systematic inventory are interpreted.

Additional limitations regarding the reliability of an informal reading inventory will be covered under other headings in the succeeding paragraphs.

Materials of Inventory. One of the very serious limitations of the inventory is the paucity of materials with a low level of readability for older children. Walter, an intelligent sixteen-year-old boy, was extremely retarded in reading The short, simple, one-line sentences in the pre-primer used were a handicap to rhythmical reading because his speech patterns were of a higher order. The lack of rhythm occasioned by the language structure of the reading selection was reduced at the primer and first-reader levels but other symptoms of his reading handicap appeared to confuse the examiner's interpretation of the findings. The available reading materials, therefore, may limit the usefulness of an inventory.

Oral-Reading Ability of the Examiner. To check reading capacity by means of hearing comprehension, the examiner must be proficient in the oral reading of

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ALL ABOUT TRANSPORTATION

Victoria Lyles *York, Pa.*

Validity of Inventory. There are at least two important aspects of validity to be considered in making a systematic inventory. First, are the materials equal in readability to that of the instructional materials? Second, are the techniques employed equivalent to those used in classroom instruction? The judgment of the examiner is one of the chief limitations in this respect. Wherever possible, graded textbooks from the school in question should be used. With the exception of the oral reading at sight, the techniques are the same as those recommended generally in teacher's guides, or manuals, accompanying widely used basal readers. When an individual inventory is made by a competent examiner, it sometimes happens that the tensions and other types of frustration behavior observed in a classroom situation do not appear at all or do not emerge with the same debilitating intensity.

The administration of a systematic inventory of reading needs should not be allowed to degenerate into a formal, mechanical procedure. In fact, formalities should be reduced to a minimum consistent with good rapport and the emphasis should be given to systematic appraisal. Not infrequently, the inventory can be made without learner awareness of the fact that a "test" has been made. Mary Ellen, age six and one half, was interested in books. It was known by the examiner that she had made quite rapid progress in reading activities. A discussion of books was used as the starting point. This discussion quickly led to the intensification of interest in the stories of a "new" set of readers. Adroit questioning to guide the discussion revealed Mary Ellen's silent- and oral-reading capabilities. Since the examiner only wanted to estimate her instructional level and to assure himself of her independent reading possibilities, he satisfied himself that she had substantial "first-reader level" reading ability and at least high "second-reader level" capacity without making her aware of frustration. No problem of motivating interest in reading was involved. All this was achieved within a period of twenty minutes. When good rapport is established, an informal reading inventory can be made.

Reliability of Inventory. From studies conducted by the writer and his students, it appears that the findings are much more consistent from one series of materials to another and from one examiner to another at the lower-grade levels than at the upper-grade levels. Findings may be expected to vary for several reasons: First, the variation in the content of basal instructional materials contributes to varied reading performance by the same individual. For example, the content of basal arithmetic, social studies, and science textbooks introduces vocabulary beyond the "core" vocabulary of basal readers. A given individual may possibly manifest ability to read a fourth-grade basal reader and a third-grade basal science book. Second, the content, vocabulary, and language structure may vary significantly from one series of basal readers to another. Basal readers vary considerably in the number of different words and in the number of running words. Third, the criteria for estimation of achievement levels and the techniques employed for the inventory may contribute to inconsistency between the findings of one examiner and those of another. The writer has found that reliability can be improved, however, by many demonstrations and discussions. Language is not always adequate for describing reading behavior. Since no two individuals exhibit the same combinations of reading behavior, it is not easy to establish or to describe "ironclad" criteria for estimating performance level. Fourth, the length of the selection used may be a factor in reliability. Within certain limits, the reliability is enhanced as the length of the selection used for testing at each level is increased. Longer selections usually increase opportunities to interpret a larger variety of punctuation situations, to manage a

synonym- or antonym-matching technique may be used. Surprisingly often, pupils with a low rate of comprehension do not have control over word-recognition skills. This can be checked by having the pupils draw vertical lines between the syllables, by having the pupil select the correct one from three or four variations in diacritical markings, and so on. Pupils having unusual difficulty with the vocabulary of a given textbook should be identified for a more detailed study of their needs.

These are only a few of the ways by which all classroom teachers can make group surveys of the reading needs of their pupils. Time taken out for the preparation of these informal group inventories can be justified. Pupils may be motivated to improve their reading and study habits, and the teacher is given an opportunity to familiarize herself with crucial factors influencing this aid to learning.

Teachers and clinicians who have not developed techniques for the systematic observation of behavior in reading situations should use the inventory or individual appraisals first. After some skill has been achieved in individual test situations, then this inventory can be used as a guide for the appraisal of reading needs in group situations.

Expectancy of Achievement

Expectancy of achievement in reading activities is complicated by a number of factors.

Mental Maturity. Since reading is primarily a thinking process, mental development is a significant factor. The correlation between reading ability and intelligence is about .60. This figure indicates that intelligence is an important factor but not the only one contributing to success in reading activities. To date the mental processes involved in reading have been neither identified nor experimentally appraised. As a result, mental age (secured from the Stanford Revision

of the Binet) is emphasized in most formulae used for predicting reading achievement.

The indiscriminate use of intelligence tests has resulted in erroneous conclusions regarding the mental equipment of retarded readers. An individual test of intelligence—such as the Detroit Learning Aptitude Test or the Stanford Revision of the Binet—is desirable for several reasons: First, a test involving items which require reading ability is not a valid one for securing an index to the intelligence of a retarded reader. These two individual tests come fairly close to meeting this criticism. Second, more information of specific diagnostic value can be secured from either of these two individual tests than from most group tests of mental capacity. Third, during the administration of an individual test considerable data of diagnostic value can be secured through observation of responses. Reading difficulties do not characterize the population at any one intelligence level, for about eighty per cent of the retarded readers have normal or superior intelligence.

Special, sometimes called orthogenic, classes have been provided for the mentally subnormal because this group does not have the capacity to profit from the learning activities of their more fortunately endowed contemporaries. However, if these individuals were merely segregated without adequate recognition of their individual needs, the underlying principles of the program would be defaulted.

Achievement Level. The gain that can be expected for an individual within a given time is dependent to a considerable extent upon where he is in terms of how far he can be expected to go. Other things being equal, a pupil in fifth grade who has a reading age of nine years cannot make the gain of a pupil who has a reading age of seven years. In short, the expected gain is the difference between the achievement level and the capacity level.

the index and then a skimming of the first page mentioned in the index. A rapid reading of a chapter or section of the book may be sufficient to get the main idea or the author's point of view. Careful study-type reading is required to round up the facts in a chapter on unemployment, the effect of the invention of the steam engine on production, and the like. Reflection and a careful reading

elapsed so that as each pupil finishes he can record the time and compute his rate. For example, at the end of one minute the teacher writes 1 on the blackboard, at the end of one minute and fifteen seconds, 1:15, and so on. Both rate and per cent of comprehension, measured by means of the questions, should be considered. When pupils are sufficiently motivated to want to know

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East Aurora, Ill.

between the lines may be required to check the author's point of view with that of another author, to evaluate the author's statements in terms of previous reading on the topic, and so on. Rate and depth of comprehension should depend upon the type of information sought.

To check rate of comprehension, the questions to be answered should be understood before starting the test. A record should be kept on the time required for reading the selection and answering the questions. This is usually done by writing on ——— ——— the time

about their reading habits, there is no tenseness in the situation. Pupils with very low rates of comprehension should be singled out for an analysis of their needs.

Third, general vocabulary needs can be identified by means of a group survey test. Crucial words, such as *craftsman, architect, thoroughbreds, purchase, maximum, geographer,* can be culled out of a unit of material and checked for pupil control over meaning. For example, these words might be checked by having the pupil select the number of the dictionary definition that best fits the use of the word in the selection. Or, the well-known

$$A.Q. = \frac{E.A.}{M.A.}$$

The A.Q. has been used as an administrative device for a number of years. Five widely used general achievement tests—such as the Stanford Achievement Test—have been used for determining the average educational age (E.A.) of elementary-school pupils.

The results of most reading tests can be expressed in reading ages as well as in reading grades, and, therefore, facilitate the use of a formula. When the reading tests of a general achievement battery or when other reading tests are used, the derived reading age (R.A.) can be substituted for E.A. in order to determine the reading quotient (R.Q.). In this case the formula reads $R.Q. = \frac{R.A.}{M.A.}$

A reading age equivalent to a mental age would produce an R.Q. of 1.00.

In order to secure a measure of the amount of retardation in reading, Marion Monroe (44, p. 14) developed a formula for computing a "reading index." This is obtained "by comparing the child's composite reading grade with his average chronological, mental, and arithmetic grade." The formula may be stated:

$$R.I. = \frac{R.A.}{(C.A. + M.A. + A.A.) \div 3}$$

In terms of this formula, a retarded reader would have a reading index less than 1.00 and a pupil with reading achievement in excess of expectancy would have a reading index greater than 1.00.

To determine expectancy of achievement, some investigators have subtracted the *reading age from the mental age.* Others have advocated using a formula which gives *some* weight to chronological age (C.A.). A weighted reading quotient is determined by the formula:

$$R.Q. = \frac{R.A.}{(2 M.A. + C.A.) \div 3}$$

Durrell (31) has developed a test of hearing comprehension to measure reading capacity. This is a unique to the measurement of possible capacity of pupils in the fourth, and sixth grades.

In general, *any means of estimating capacity of achievement should emphasize mental age as one factor.* However, there is an urgent need for research on the relationships between certain psychological processes and certain reading abilities. In addition, other factors appear to be significant in individual cases. The wide variety and range of individual variations make it mandatory that sound judgment should be used with a formula.

An adequate appraisal program should reveal the amount of retardation in reading. In fact, expectancy of achievement is one of the most significant factors in an educational guidance program. If the wealth of research data on individual differences is to be translated into schoolroom practice, both the instructor and the administration must participate in a planned program for the study of achievement in terms of each learner's potential capacity for achievement. Remedial instruction in reading is largely for individuals with normal or superior intelligence. Only about twenty per cent of the retarded readers have below normal intelligence. Not infrequently, however, individuals are referred for special help in reading when they do not have sufficient mental maturity to profit from instruction. Therefore, at least two reasons can be advanced for emphasizing expectancy of achievement: first, to identify pupils who are not achieving in terms of their capacities; second, to *avoid insistence upon participation in* certain types of reading activities by pupils who do not stand to profit from them.

Summary

Important points in this chapter are summarized in the following statements:

The writer has found that systematic subjective reading examinations provide more evidence of diagnostic value on serious reading disability cases than standardized group tests do. One of the factors contributing to unreliability of formulae for determining a reading quotient or reading index to predict achievement is the reading test employed. Because few, if any, standardized reading tests are satisfactory for discriminating among abilities at the lower end of a distribution, they have not been found entirely satisfactory for appraising the achievement of retarded readers.

Emotional Well-being Although teaching procedures and instructional materials are important, enlisting the learner's effort is a first consideration Some cases of prolonged serious reading disability require supermotivation Without learner co-operation and insight, the most attractive and worth-while reading materials are ineffective The emotional well-being of the individual is, in a sense, a governor of energy Until this energy is enlisted and directed toward the intelligent solution of his problems, achievement must hang in the balance

One of the first steps in the correction of a reading difficulty is the development of wholesome and virile attitudes of approach In a thoroughgoing analysis program, the learner is made literate regarding his strengths and weaknesses Furthermore, confidence is built in himself and in the teacher or clinician And as a culminating activity in the initial analysis of difficulties, the learner is led to the statement and recording of specific goals which are understood and which can be achieved

Physical Status It is probably a truism to state that *physical readiness may be a* factor in expectancy of achievement The relationship between certain physical handicaps and lack of achievement has not been adequately appraised for a number of reasons First, overemphasis by some on such factors as vision has

caused many reactionary statements which tend to confuse those who are not students of the problem. Second, abortive attempts by some investigators to assay the situation have been given uncritical acceptance. Third, capacity for compensation has not been controlled in the investigations reported to date. Fourth, psychophysiological factors have not been studied carefully. In spite of confusion in thinking on this subject, most clinicians *dealing with learning disabilities* now use screening tests as a part of the analysis routine for the purpose of *detecting* difficulties which should be referred to a specialist for *diagnosis* and possible correction

DETERMINATION OF RETARDATION

The accomplishment ratio or achievement quotient (A Q.) has been used for expressing relative educational development to mental development. The purpose of this procedure is to determine whether a given pupil is achieving in terms of his mental ability. The value of this A Q. depends upon the validity and *reliability* of the measures employed and upon the validity of the assumption regarding the relationship between educational achievement and mental ability. The A Q. is found by dividing the educational quotient by the intelligence quotient $\left(A Q. = \dfrac{E.Q}{I.Q} \right)$ The educational quotient is found by dividing the educational age by the chronological age; the intelligence quotient, by dividing the mental age by the chronological age. Hence,

$$A Q. = \frac{\dfrac{E.A}{C.A}}{\dfrac{M A}{C.A}}$$

When the achievement and intelligence tests are given at approximately the same time, the C.A. can be omitted from the formula, which would then read:

XVIII. Mental age is only one significant factor in reading achievement.

XIX. Reading difficulties cannot be explained in terms of any one factor. Many factors must be considered.

XX. In general, expectancy of achievement in reading appears to be dependent upon mental maturity, level of achievement, emotional well-being, physical status, and the nature of the instructional program.

XXI. Capacity for compensation appears to be a significant factor in learn-

XXII. Among those who are both mentally immature and low in reading achievement there is a greater incidence of visual, hearing, and other types of physical difficulties.

XXIII. A study of expectancy of achievement in reading involves, in so far as possible, an appraisal of the whole child.

XXIV. When capacity for achievement is considered, not all pupils scoring below "grade average" are retarded in reading. Likewise, many pupils rated as average or better may be retarded in

I. An informal reading inventory provides crucial information on achievement levels and needs at those levels.

II. An informal reading inventory may be made in a group- or individual-test situation

III An informal reading inventory usually requires from five to thirty minutes of administration time.

IV Each directed reading activity in a group situation is, in a sense, an informal reading inventory. By observing the reading behavior of each child in the group, the teacher can appraise the adequacy of her grouping

V. Standardized test results usually lead the teacher to overestimate the levels at which independent reading can be done and at which systematic instruction may be initiated safely

VI Symptoms of reading difficulty—such as vocalization, word-by-word reading and tension movements—increase as the child nears his frustration level

VII Test materials for an informal reading inventory are selected from graded textbooks for basal reading, science, social science, and arithmetic or from graded current events materials.

VIII. An informal reading inventory may be used to estimate readiness for reading, readiness for spelling instruction, independent reading level, instructional reading level, frustration level, capacity level, specific needs at the instructional level, small increments of growth, and the amount of retardation in reading In addition, an experienced examiner may identify various types of extreme reading and general language disabilities.

IX With the exception of oral reading at sight to estimate the "starting level" for the systematic inventory, the basic principles of a directed reading activity are followed.

X. In case of doubt, materials at the basal reading level may be used for independent reading Usually, however, the independent, or free, reading level is slightly above the basal reading level. In any event, independent reading must be done in materials that present few, if any, hazards to comprehension and development of facility.

XI. Differences between the independent-reading level and the instructional-reading level vary from child to child. On the grand average, at the fourth-grade level Killgallon (38) found a difference of about two grades between the two levels.

XII. Independent, or free, reading should be done in materials that present few, if any, pronunciation or comprehension difficulties Independent reading should be characterized by a high degree of comprehension, accurate pronunciation, freedom from evidences of frustration, versatility in use of reading skills and abilities, and fluency.

XIII. Reading behavior in developmental, or directed, reading situations should be characterized by ability to pronounce at least ninety-five per cent of the running words, freedom from symptoms of frustration, a high degree of comprehension, rhythm, accurate interpretation of punctuation, and facility in use of word-perception skills and other types of reading skills and abilities.

XIV. The value of an informal reading inventory is limited by the professional competency of the examiner, the degree to which the materials and techniques approximate those used in the classroom, and the extent to which the major reading skills, abilities, attitudes, and types of information are sampled

XV. An informal reading inventory has several advantages: low cost, directness, rapid appraisal, validity, individual- or group-administration possibilities, ease with which the learner is made aware of needs and of progress, and available test material.

XVI. Basal readers at each reading "level" vary in readability because of differences in the type of content, vocabulary, and language structure.

XVII. Instructional materials should be ordered in terms of the reading levels, the needs, and the interests of the pupils in the classroom.

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❧ CHAPTER XXII ❧

Directed Reading Activities

The purpose of the basal program is to pave the way and provide the foundation and incentive for much wider, more enjoyable, reading than would otherwise be possible It is designed to free the teacher of much of the work that she would otherwise have to do, so that she can give more attention to the proper selection of other reading materials and the proper guidance of children in their total reading program
— ARTHUR I GATES (39)

The Basal-Reader Approach

Efficiency Through Grouping. The traditional way to teach reading is through the use of a basal series of readers In many schools, more than one series of readers is used, one series is adopted for basal use and one or more series are used as supplementary readers In the more progressive type of traditional school, the pupils are grouped in terms of their reading abilities for directed reading activities in which the basal readers are used There are, of course, too many schools today in which every child in a school grade is given the same basal textbook prescription Before most teachers can break away from the traditional regimented use of basal readers, they must learn how to differentiate instruction by grouping children in the classroom In order to insure the efficiency of the basal-reader approach to reading instruction, the teacher should be competent in ascertaining the independent and instructional reading levels (10) of the pupils and she should have a thorough understanding of the basic principles and procedures of a directed reading activity

Making the Best Use of Basal-Reading Materials This discussion deals with

directed reading activities in which basal textbooks are used The primary consideration is with lesson planning and the many problems that arise in making the best use of basal-reading materials. Here it is proposed to facilitate teacher use of manuals and guides by pointing out the underlying organization of the lesson plans and by describing the essential procedures. From these statements, it should be clear that lesson planning is one of the most important activities of a teacher in a modern school Undoubtedly, many reading difficulties can be prevented by effective planning. Specifically, information is given on these questions.

I What are the major steps in a directed reading activity?

A How are teachers' manuals organized?

B. Should a manual be followed word by word?

II What principles and assumptions are basic to the effective use of basal readers?

III How can individual needs be recognized in directed reading activities where basal readers are used?

IV How much time should be given to directed reading activities?

V. What is a good way to present a new book to a group?

VI. When and how should "new" reading vocabulary be introduced?

A. At what time is help given on word recognition, especially phonics?

B. Should the first, or survey, reading be preceded by drill on the new vocabulary?

C. What should be done when a child cannot pronounce a word during the first, or silent, reading?

D. What should be done when a child cannot pronounce a word during the rereading?

VII. How should children be prepared for the first reading of a story?

A. Should a story be assigned for study before it is "taken up" with the group?

B. How is a specific background of experience developed?

C. How are concepts developed?

D. What is a general motive question?

VIII. Why should the first, or survey, reading always be done silently?

A. What should be done when a child uses lip movement or finger pointing?

B. What should be done for a child who can "read" all the words but who cannot answer questions about what he "read"?

C. What kind of comprehension checks should be used?

D. What is the purpose of the introductory reading?

E. How is the silent reading guided?

F. Should the children be permitted to use guides or markers?

G. How does the silent-reading behavior help the teacher evaluate the instructional level of the pupil for grouping purposes?

IX. Should the rereading be done silently or orally?

A. Should every story be read orally?

B. When is the rereading done?

C. How can rereading be made purposeful and interesting?

D. What are the characteristics of good oral rereading? Of silent rereading?

X. What are some effective ways to follow up a directed reading activity?

A. When should workbooks be used? Should every child be given assignments in a workbook?

B. What should the other pupils be doing when the teacher is working with one group?

C. Should flash cards be used?

XI. Should a story be broken?

XII. Should a blackboard be used in modern reading instruction?

XIII. What limitations of basal readers should be recognized in the reading program?

Chief Consideration in Manuals. In teachers' manuals for basal readers, directed reading activities have been referred to under several headings. *directed-reading period, directed study, developmental reading, reading lesson, developing a story,* and *basic instruction in reading.* Regardless of what labels are used, the chief consideration is the systematic development of reading ability by means of a series of reading lessons graded in difficulty. In this type of learning activity, the emphasis is on the intensive reading and guidance.

As has been pointed out elsewhere (8) the basal reading book approach to instruction is only one way to tackle the problem of teaching children how to read. While this is the traditional approach to reading instruction, the modern series of basal readers has, in many respects, significant improvements over McGuffey's first set of graded readers. Manufacturing processes have been improved, resulting in more attractive books and in increased visibility of type. Through scientific investigations, authors have access to fairly specific information on children's interests, vocabulary development, children's use of language structure, and the like. In addition, the modern teacher has access to information on the major goals of reading instruction, basic principles of learning, systematic sequences of learning, individual differences in learning, and techniques of classroom management to meet individual needs. There is no excuse for basal textbooks of

any kind to be used in a modern school for the purpose of regimenting instruction and, thus, merely going through the motions of holding school. It is possible, by observing certain established principles, to use them to achieve worth-while and significant results.

There is no one best way to teach reading to all children in all types of school situations First and last, instruction must be given to meet learner needs. A mentally retarded child usually has neither the needs nor the reading capacity possessed by a superior child Then again, a child with a specific language disability may require teaching by special methods Added to differences in the requirements of individuals are differences among teachers and teaching situations Some teachers may be inadequately prepared to make the best use of basal readers with small groups in the classroom while other teachers may have the professional preparation and experience to develop reading abilities without benefit of basal readers. Of course, what a teacher can do and what a teacher is permitted to do may be two different possibilities. For example, it makes considerable difference whether children are admitted to the first grade at four and five years of age or at six years of age. School policies regarding promotions, purchase and use of instructional materials, departmentalization (a serious obstacle to integration), report cards, and the like are potent factors in modifying instruction. Generally speaking, no one has devised a method of reading instruction suitable for all children under all circumstances However, all teachers should be guided by basic principles of learning which have been experimentally appraised and time tested

INDIVIDUAL AND GROUP PURSUITS

In general, the lesson plans in most teachers' manuals are organized somewhat as follows:

Directed Reading Activity

I. Developing Readiness
 A. Insuring an adequate background of experience
 B. Developing working concepts
 C. Stimulating interest and identifying a general motive for the reading
II. Guiding the first silent reading
III. Developing word-recognition skills and comprehension
IV. Rereading
V. Following up the book reading

Use of Manuals. Teachers' manuals written to accompany a basal series of readers should be used as a *guide* rather than as a prescription or recipe. Most teachers' manuals, or guides, are well written and contain a wealth of sugges-

tions for teachers using basal textbooks. In so far as she observes basic principles of learning, the teacher should feel free to modify the suggestions and to capitalize on her own enthusiasm, resourcefulness, and imagination. Mechanical procedures have never been found to be superior to an inspired and competent teacher. An interested teacher usually will want to read the teachers' manuals *to pick up new ideas and to familiarize herself* with the general teaching plan and points of view of the authors. At no time, however, should the teacher become a slave to the manual. Instead, variety—consistent with basic principles of learning—should characterize directed reading activities in order to stimulate and maintain interest.

The authors of basal readers are in general agreement on these basic principles and assumptions regarding directed

reading activities First, the group should be prepared, oriented, or made ready, for the reading of a story or selection. Second, the first reading should be *guided silent* reading Third, word-recognition skills and comprehension should be developed during the silent reading Fourth, the reading—silent or oral, depending upon the needs of the pupil—should be done for purposes different from those served by the first, or silent, reading. Fifth, the follow-up on the "reading lesson" should be differentiated in terms of pupil needs.

DEVELOPING READINESS

Important Initial Step. The first step in a directed reading activity is the development of pupil readiness for reading the specific story, unit, or selection in the basal textbook A survey of teachers' manuals in current use reveals that this step is variously referred to as *orientation, preparation, approach, introduction and reading motive, readiness for understanding, background discussion, preliminary development, stimulating interest, approach or point of contact,* and *quickening comprehension* The similarity of these labels for the first step in a directed reading activity indicates the general agreement by the authors of basal readers on this one point· the learner should be carefully prepared for the activity.

This type of reading readiness is developed by locating the story in the table of contents, by informal discussion pertinent to the new story, and sometimes by an informal perusal of the illustrations. If, in general, the group is ready to read at the level of difficulty represented by the book, this part of the directed reading activity requires only a very few minutes

The value of illustrations in developing readiness for the reading of a story in a basal reader has been pointed out by Dolch (47, p 93):

The publisher of the reading book also prepares the story, but he does it through the illustrations He gets the *most skillful* and *imaginative* children's artist that he can, who

makes the pictures as exciting as possible, and causes the children to imagine themselves in the story.

Reasons for Readiness. Readiness for the reading of a given story or unit in a basal textbook is developed for several reasons. First, a systematic attempt is made to enlist group interest in the particular story. Second, pupil backgrounds of information are shared and pointed toward the reading of the specific unit to insure accurate concepts. Third, "new" reading vocabulary is brought out by a skillful teacher to insure oral control over the vocabulary. (In this discussion, the term "new words" is used to designate the vocabulary appearing for the first time in the *reading experience* of the learner.) Fourth, a general motive is established for the group reading of the *unit* to stimulate interest and to give purpose to the *reading.*

Readiness on All Levels. The principle of developing readiness should operate at the sixth-grade level as well as at the first-grade level. One of the chief differences at these two levels is the language, and consequently the concepts, involved in the discussion *At the lower levels,* for example, the concept *hen* as a mother chicken might have to be developed for the intelligent reading of a story; at a higher level the concept of *half-breed* would be a prerequisite for understanding a story involving a character who is part Indian. It will be seen, therefore, that the development of readiness for reading a specific selection is a crucial factor in a directed reading activity at all school levels

One of the pitfalls to be avoided in this introductory part of a directed reading activity is drill on isolated words Beginning teachers, especially, are likely to resort to isolated word drills during the readiness, or preparatory, part of the activity "because the children can't pronounce the words" When the teacher finds it necessary to drill on "old" and "new" vocabulary before the first—or silent—reading, steps should be taken to appraise the instructional reading levels

of the pupils in the group. It is usual to find many children working over their heads; that is, the pupils are not ready to read the book in question because of background deficiencies. This pitfall can be avoided by supplying children with reading materials at or below their instructional levels and by following the principle that "new" words should be encountered first in context.

While engaged in developing learner readiness for the reading of a given unit of material, the teacher should focus attention on concept development rather than only on word recognition. Like adults, children are interested in the things they can understand and do well. While the visual recognition of word forms is a most important set of skills for children to acquire, the reading process goes far beyond the mechanics of word pronunciation. The foundation of interests is meaning, and this problem of meaning is a highly personal one for the learner.

Frequently this question is asked by the teacher, "Should the story be assigned for study before teaching?" The answer, of course, is an unqualified "No!" The reasons for this answer should be made clear in the succeeding discussion.

Some of the items to be considered in developing this type of reading readiness are summarized as follows:

Presenting a New Book. When a new textbook is presented for the first time to an eager group of children, a special effort should be made to focus attention on the content and its organization. Before distributing copies of the new book, the children should be "pepped up" in anticipation of new pleasures. (Of course the teacher must make sure that every member of the group has sufficient reading maturity to be ready to read the new book so that no child will be let down or frustrated.) Immediately following the distribution of the new book, attention should be directed to the title and illustration on the front cover, and the organization of the book should be explained. As the pupils leaf through the book, consideration should be given to the title page, the copyright information and its significance, acknowledgments, the preview of things to come as outlined in the table of contents, and other important aids such as the glossary, or little dictionary, in the back of the book. While no important part of the book should be neglected in this initial presentation, special consideration should be given to the table of contents and how to use it. A few minutes spent in leafing through the book and entertaining spontaneous comments are always justified. The presentation of a new book to a group affords an opportunity to develop attitudes of approach.

The suggestions made in the paragraph above should be used judiciously. The teacher should be concerned primarily with the fostering of interest. Time should be provided for the children to share their interests in the illustrations and stories as they thumb through the new book and make informal comments. All this fun in getting acquainted with the new book should build anticipation for the good times ahead.

When a new book is presented to a class, some time spent in explaining and demonstrating the care of a book is well justified. One item deserving special mention is that of how to open a new book. Most new books are stiff and it is difficult to keep them open at a given page. When a new book—even with the most sturdy binding—is improperly handled, it is soon destroyed. Hence, the teacher should demonstrate how to open it. This is done by placing the back of the book on the desk with the opposite covers in each hand. Use the left hand to open the front cover and the right to open the back one. Then use the left hand to press down the first few pages of the open book and the right hand to press down the last few pages of it. This process is continued with a few pages at a time, alternating from the right to the left hand until the middle of the book has been

reached. The demonstration should be followed up with practice by the pupils.

Another important item having to do with the care of books is the means used for indicating one's place in a book. How a book can be damaged by using pencils, erasers, and other large objects should be explained. Advice should be given on the use of a strip of paper or a string as a marker. Better still, the pupils should be interested in preparing their own individual book markers. In addition to the use of book markers, the children should be taught to use the table of contents for finding their places in a book. Many children, of course, will remember the number of the page read last.

Insuring an Adequate Background of Experience for Reading. One of the reasons for reading and listening is to acquire information. However, to be a critical reader, an intelligent reader, or just a good reader, the child must take considerable experience to the reading matter. For example, a city child may have heard the words *barn, windmill,* and *pump,* but if he has never seen one or a picture of one, his ideas may be far from reality. Reading is a double-barreled proposition involving both language and facts, or experience. Hence, the teacher should *never, never* take for granted an accurate background of experience on the part of the child.

In most basal readers, the stories are grouped into larger units. This grouping reduces the amount of time required to insure a sufficient background of information on the part of the children for the reading of a given story. When some of the pupils in a group are discovered to be laboring with a story because of inadequate experience, it is quite probable that the material is too difficult. Elaborate procedures for the preparation of children for a reading activity cannot be justified; instead, the teacher should reappraise the instructional level of the pupils evidencing difficulty (10).

A background of experience can be developed in a number of ways, including informal discussions, use of worthwhile visual aids, and excursions to interesting places. Direct experience, of course, is superior in many ways to vicarious, or indirect, experience. For example, a child's understanding of a barn, an escalator, a Pullman, a zoo, a broadcasting studio, or the manufacture of penicillin may be much more complete if he makes direct observations of the thing or the process than if he merely observes pictures, listens to discussions, or reads about the items in question. The use of language—that is, discussions and reading—is, at the best, a hazardous means of overcoming experience deficiencies. Dramatizations, arts and crafts activities, excursions, bulletin-board arrangements, spontaneous discussions for the purpose of sharing pertinent experiences, slides, charts, movies, reading, and the like are legitimate means for building a valid background of experience. However, the experience should be as close to doing and direct observation as possible in order to insure accuracy of facts.

Developing Working Concepts. Intimacy with the facts involved and control over the language necessary to deal with these facts are essential to concept development. In other words, having observed or having engaged in a given operation is not a guarantee of the kind of understanding required in readiness for reading. To communicate meaning to others by means of speech, or in writing, or to get meaning from listening and reading, requires the ability to relate symbols to facts. "Reading is a process of reconstructing the facts behind the symbols." What one gets from reading is a sequence of related concepts, sometimes called mental constructs. In short, the development, extension, and refinement of concepts is an important prerequisite to reading and a crucial outcome from reading.

To insure satisfaction from reading, the teacher must appraise the adequacy of the pupils' concepts pertinent to the selection to be read and give systematic

FIRST-HAND EXPERIENCE

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guidance in developing adequate concepts. Of course, no elementary-school child is likely to have complete concepts of things and processes. As long as the individual continues to grow intellectually and emotionally, his concepts will be modified. However, it is necessary for the learner to have working concepts, i.e., concepts sufficiently adequate to serve his immediate needs. For example, it is unnecessary for the child in the primary school to take an advanced course in physics to have sufficient understanding of how an electric doorbell works or how a toy airplane can be made to soar. In brief, there is no substitute for sound teacher judgment in deciding whether a child has sufficiently adequate concepts for *reading* a given selection.

A very practical way of appraising and developing concepts is through the sharing of pupil and teacher experiences in directed group discussions. Quite often the teacher may find it necessary to inject into the discussion a demonstration of such concepts as *over* and *under* and *big* and *little*. Then, too, the use of products and models may be essential to understanding how a thermostat works or how an electromagnet is used in a doorbell. Generalizations such as *dog* and *cereal* and *democracy* may require the use of outlines, pictures, and the like for insuring workable understandings. A resourceful teacher can usually clarify pupil understandings if she is aware of the many semantic, or meaning, pitfalls that clutter the average child's road to independence in reading.

Stimulating Interest and Identifying a General Motive for Reading. Interest is stimulated, in part, by insuring an adequate background of experience pertinent to a given unit of reading material and by developing adequate working concepts. Interest and understanding can be heightened further by establishing in the pupils' minds the relationship of a given

selection to the total unit of material under consideration, by giving the background of the story or information, by reminding the children of related stories and information previously heard or read, by locating the geographical setting, by perusing and discussing the illustrations to develop oral control over new words and to insure working concepts, by comment on the title and subtitle, if any, and by setting up a general motive for the reading. Interest and purpose are highly interrelated in any fruitful learning situation

1 *Unit Orientation* In several basal series of readers, the stories are grouped in each book around a common center of interest, theme, or topic For example, three to seven stories may be grouped under the heading of *Circus Stories, Our Animal Friends, In the Country, In Town, Foods from East and West*, and so on This organization of the content is indicated in the table of contents Pupil attention should be called to this unit, or topical, grouping of stories when the unit is undertaken and each story should be related to the total unit as it is developed As a result, the pupils should be able to make better use of the table of contents and they should be better oriented regarding the sequence of events The unit, or topical, organization of stories makes it possible for the teacher to inquire into pupil backgrounds and to develop an adequate background for the reading of a number of selections, thereby reducing the time required in the directed activity for each story.

At the beginning of each directed reading activity, the children should find the story in the table of contents After the story has been found and has been related to the topic, or general group of stories, they should be guided in finding the story in the book. Activities of this type are initiated at the beginning-reading level and continued throughout the elementary-school period.

2. *Specific Preparation* Preparation for the reading of a unit, or a grouping of stories,

should be specific. Through discussion, the pupils may evaluate excursions, previous stories and information, and personal experiences in terms of the new unit. If, for example, the new unit is on work or recreational activities in the city or in the country, the sharing of pupil and teacher experiences should point out interesting comparisons and contrasts between life in the city and in the country. Experiences may be related on mail delivery, fire protection, police supervision, educational opportunities in schools and libraries, types of work activities and so on These experiences may be summarized and pointed up by the teacher somewhat like this, "In this part of the book, we will read some stories about what Bob and Mary did on the farm after school hours."

Frequently, *it is necessary for the teacher to sum up the background for a specific story and to help the children locate on a map or a globe the geographical setting in order to fully appreciate the first reading. For example, if the story is about a given frontier, the time, place, and events leading up to the particular story should be identified. At higher-grade levels, the discussion might center around geographical frontiers or frontiers in science. Furthermore, time and place concepts require systematic development and should not be left to haphazard consideration by the pupils Hazy preliminary concepts, or understandings, are not conducive to a critical reading or to retention. In this part of a directed reading activity, the setting is the thing of prime importance in developing readiness*

In connection with stimulating interest in a given selection, one pitfall to be avoided is that of telling the story in advance of reading it. When the pupils already know the story, the motivation for reading it may be reduced to the zero point Meaning is given needed emphasis when the pupils are reading to find out what happened.

3 *Use of Illustrations.* Textbook illustra-

tions are good nonverbal, or nonlanguage, devices for insuring accurate concepts. The time and geographical setting for a story may be noted by the model of the airplane or automobile, by the mode of dress of the characters, by the means of transportation depicted, and so on. Accuracy of concepts, or control over language-fact relationships, may be established by inspecting the illustrations for such items as *crane* (fireplace), *cradle* (harvesting device), *cable*, *cereal*, and the like. These new words in the reading unit may be listed on the blackboard as a means of clinching oral control over vocabulary. In addition, the interest for children of all ages is stimulated by opportunities to comment on attractive illustrations. Children may enjoy a story because Tike is a rugged and loyal dog or because Spot is a puppy they would like to cuddle. For these reasons, a systematic perusal of the illustrations can be a fruitful means of preparing children for the first reading of a new story or expositional selection.

The last step in orienting the group for a specific directed reading activity is the establishment of a general motive for reading. At the lower-grade levels, the general motivating question may be used as a means of pointing up interest, or establishing a major need or purpose, for reading the story because children with immature reading habits may require more specific guiding questions to lead them through the story sequence. As soon as children can read silently to find the answer to a general motive question, unaided by specific guiding questions, they should be encouraged to do so. In general, a type of question should be asked that calls attention to the central theme of the story, or to the main idea of the expositional selection.

4. General Motives for Silent Reading. General motives, or purposes, for the silent reading of a given selection may take several forms, depending on the maturity of the group and the nature of the material. For example, at lower levels,

the teacher's remarks might run as follows: "We had fun talking about the circuses we have seen. Today we are going to read about 'Bob and Mary at the Circus.' Do you suppose they had more fun than we did? Let's read the story to find out what happened at the circus." Then again, the instructions might be given this way: "This story has an interesting title. What is it? Yes, but that is a strange thing for Tike to do. Why do you suppose Tike did it? [Let the pupils guess.] As we read the story, we will find out who guessed right." Or, at higher-grade levels, this type of motive may be established: "We have been discussing labor-saving devices. This is the story of Eli Whitney's cotton gin. Let's read the story to find out how Eli Whitney helped to improve the cotton industry." These are only a few ways in which general motive questions are set up.

Dr. Clarence Stone has made these pertinent comments regarding the use of the general motive questions for the introductory reading of a selection (87, p. 277):

> The skillful teacher develops the habit of keeping before the children what has been called a motive question. Such a question helps to stimulate the thinking essential in reading, to keep in the child's mind the thread of thought, and to focus attention upon a satisfying conclusion to the incident or story. It contributes materially to the development of the attitude of reading for meaning instead of for the purpose of word calling. It provides the child with a welcome drive which aids him to anticipate meaning and overcome mechanical difficulties. A type of problematic question which runs through the reading unit and ties the parts together or which involves consideration of the whole in solving the problem focuses attention upon major values and induces the type of thinking essential to intelligent interpretation.

5. Personal Motives. Another one of the pitfalls to be avoided in directed reading activities is that of a teacher-centered learning situation. In a highly motivated learning situation, the purposes are in-

tensely personal. A pupil engages with zest in a reading situation to the degree that he has a personal interest in the general nature of the content and that he has personal problems to be solved However, the materials of basal readers are usually selected for inclusion on the basis of common central themes in the curriculum. The physical size limitations of a book preclude the possibility of an extensive study of a given unit within the confines of a single book. However, this single textbook limitation does not exclude the possibility of developing a learner-centered situation in the use of a basal reader One of the initial steps in developing a unit of activity is to find out what the pupils already know and, at the same time, share this information with classmates A second important consideration is the organized statement of what the pupils *desire* to know. Some of these questions may be answered by the reading of the basal textbook; the remainder should serve to stimulate interest in extensive reading *and other sources of information. In short, basal textbooks should be used as only one source of pleasure or information by capitalizing on the personal questions of the group to enlist pupil effort.*

Developing Reading Readiness: In Summary. At all age levels the development of a readiness for that which is to be experienced appears to be an undisputed prerequisite for learning. Basically, this calls for a prepared teacher, because *an inspired and well-prepared teacher is more important in any situation than is*

On Deck with the Skipper

Bertha Smith

Yonkers, N.Y.

cold methodology. The development of readiness on the part of the pupils, then, requires a stimulation and redirection of their "feelings" as well as the extension of their vocabulary and background of information pertinent to the topic in question.

Preparation or orientation for a given story usually means the immediate development of one story by stimulating interest, desire, and enthusiasm, connecting pupil background with the story material, clearing away oral vocabulary difficulties, and establishing a motive or motives for reading. The preparation of a group for a particular lesson, or story, or unit may involve pooling of pupil and teacher experiences through informal conversation, having the pupils tell the story from the illustrations in the book, finding the table of the story in the table of contents, developing new vocabulary in key sentences or in a variety of supplementary reading activities, reading of related stories and poems, and using picture cards. *Creating a mind-set for the thought of the unit is the first task of the teacher.*

In general, the following points should be considered:

1. The amount of preparation for a specific unit of material will depend upon the abilities of the pupils and the nature of other classroom experience.
2. The thought should be stimulated and kept uppermost in the pupil's mind.
3. The immediate development of the story should be brief and closely related to the thought of the story. The time consumed in the orientation or preparation of the group should not be disproportionate to the time spent on other phases of the directed reading activity.
4. The content of supplementary reading activities used for preparing the pupil for the vocabulary and thought of a given unit should not be the same as that of the unit or story.

When Readiness Has Been Achieved. Readiness for reading a unit in a basal textbook has been achieved (1) when the children are interested in the content to be read, (2) when the pupils have demonstrated control over the vocabulary and sentence structure (i.e., the language) used in the selection, and (3) when they have a general motive for reading the selection so that they anticipate ideas. Skillful direction of this part of a directed reading activity gives the group a mind-set and a feeling for the story. Readiness for comprehension, or understanding, should be the keystone of this part of a directed reading activity.

There are at large a considerable number of adults who look back upon traditional school practices as representing the best way to learn. In most traditional schools, very little attention was given even to readiness for reading and probably none to orientation or preparation for a reading lesson. In the traditional school, the common practice was to call a class to attention for a reading lesson, to call upon the first pupil for an oral reading of the first paragraph, *and to proceed with the oral reading of the selection by the taking-turns method. The inadequacy of these practices is well known in professional circles because studies have been made of pupil failures, nonpromotions, poor attitudes, warped personalities, frustrations, and many other undesirable outcomes.* Children have a right to be free from the frustrations induced by that type of professional ignorance.

GUIDING THE FIRST READING

Following a brief orientation for a given story or expositional selection, the teacher guides the group through an introductory reading of the whole story. (This first reading is *always* done *silently*.) In teachers' manuals, this part of the directed reading activity is referred to as *introductory reading of the whole story, reading to get the main points, reading, silent reading, first reading: silent, silent reading study, study of content, directing study, reading from the book, reading the unit, reading and related activities, silent reading and check,* and *first*

reading What thus step in a directed reading activity is called by the various authors depends, in part, on the type of content in the basal reader. Regardless of practices in some schools, the chief point to be made is that the first reading of the whole story or selection is done silently.

Advantages of Silent Before Oral Reading

Some of the advantages of silent reading before oral reading or study may be stated as follows

1. *Frequency of Use in Life* Silent reading is used more often in life outside the school than is oral reading. Furthermore, silent before oral reading is used in life outside the school Hence, efficient silent reading merits systematic attention at all school levels

The use of silent before oral reading in life situations has been summarized in able fashion by Mark Karp (61, p 103):

> In life-situations outside the school, a person reads orally a passage only after he has first read it silently A cursory review of such situations reveals the truth of this statement When one is to read something in public or over the radio, he will read it silently once or several times in order to get the main idea *and the related subordinate details Thus he is able to make the proper interpretation* based on an understanding of the whole and its parts When a person reads to another something that he has previously read from a newspaper, magazine, or book, he must have read it silently first When a secretary reads his minutes, or a chairman of a committee his report, there has undoubtedly been a period of preparation in which silent reading has taken place If a person is substituting for another in a reading situation, he invariably reads beforehand silently that material he is to read orally There is no doubt that the success of the oral reading situation is contingent on achievement in silent reading

2. *Rapid Rate* Silent reading has one major advantage over oral reading in everyday living. it can be a more rapid process than oral reading is When the individual is freed more or less from the need for using the speech apparatus in activities, his rate of reading is increased

This, incidentally, is one reason why *silent lip movement*, whispering, and low utterance--all forms of vocalization--should be prevented in silent-reading situations

3 *Versatility.* The rate of silent reading can be varied by the individual in order to skim, to read rapidly for main ideas, or to study for details This permits a selection of reading skills to meet the needs for the situation. The ease with which the rate of silent reading can be varied allows the individual to pause for that most important study habit: reflection Furthermore, varying rates of comprehension among individuals may be cared for without penalizing either the slow or the fast readers when silent reading precedes oral reading.

4 *Usefulness in Sensing a Whole Story or Selection* When the first reading is done silently, the pupil has an opportunity to sense the wholeness of the selection This increases personal pleasure, enhances comprehension, and, in general, gives tone to a directed reading activity. Meaning rather than the mechanics of reading is placed at a premium.

5 *Usefulness in Developing Habits of Study* When children are taught to read silently before attempting an oral reading of a selection, they have acquired socially useful habits of study that are developed simultaneously with reading ability. Children at all school levels should acquire the habit of making careful preparation for oral reading by means of silent reading.

While there is general agreement among specialists in reading instruction that *silent* reading should always precede oral reading in a directed reading activity, very frequently in life selections are read silently without oral rereading Even in a directed reading activity, the rereading often is done silently. The aim of silent reading is to understand the meaning of a selection, the aim of oral reading, to express it

6. *Usefulness in Improving Oral Reading.* When the initial reading is done silently,

a higher degree of expression and fluency in oral reading may be achieved. The preliminary silent reading acquaints the pupil with material so that the oral re-reading may bring out the mood and intent of the author.

7. *Value for Identifying Silent Reading Needs.* When silent reading is done before oral, individual needs required in life situations may be identified. For example, pupils found to be struggling with the mechanics of reading or with comprehension may be grouped for more preparatory work. Systematic guidance can be then given to eliminate undesirable habits such as finger pointing and vocalization.

8. *Value as Good Mental Hygiene.* When the pupil is permitted to read silently before he reads orally, he has an opportunity to prepare for his audience. This preparation in itself is good mental hygiene because the pupil has a chance to grasp the material so that his oral reading can be done successfully. Even an experienced reader is put on the spot when he must do oral reading at sight. Silent reading preparation for oral reading reduces tensions and frustrations and thereby contributes to self-respect and the esteem of contemporaries.

Children who have not been taught to do silent reading first in a directed reading activity usually can be divided into two categories. First, there are those pupils who start right off with oral reading just as soon as the book is placed in their hands. This type of poor reader can be spotted immediately by a classroom visitor. Second, there are pupils who mumble or plow through the first silent reading without asking for help on word recognition or comprehension difficulties. By using very inefficient reading habits they skip over all the words they cannot readily pronounce and sometimes manage to obtain a broad impression of what the author had to say. This abortive attempt at reading can be detected in the pupils' discussion of the selection and in their oral rereading. In

most instances, however, this second type of poor reader can be detected in his responses during the silent reading because he will resort to makeshift "crutches," such as vocalization, finger pointing, and tension movements. In any event, pupils who have not had adequate instruction in silent reading stick out like sore thumbs in a classroom or a reading clinic.

Grouping. Probably one of the biggest barriers to a successful first reading in some schools is a lack of pupil readiness. In surveys by the writer and his graduate students, it has been found that as many as forty to sixty per cent of all elementary school children in some schools are completely frustrated by the difficulty of the basal-reading materials they are using. This was found to be true even in some situations where the children were supposedly organized into small groups for directed reading activities. One of the worst pitfalls in reading instruction is that of giving children materials to read *that are entirely too difficult.* A second pitfall is that of giving a child a one hundred per cent diet of material that is not challenging because it is too easy. Children cannot be expected to manifest much enthusiasm in the first reading when they are bogged down by word-recognition and comprehension problems.

When basal readers or any type of basal textbooks is used, some provision must be made for recognizing individual differences in needs, interests, and capacities. In the more successful traditional schools, the grouping of children in the classroom is resorted to. This is one way to handle the situation.

Grouping is done most effectively when every child in each group is placed at an appropriate reading "level" (10). Differences in general levels of reading achievement, differences in individual needs at each level, differences in reading capacities, differences in interests—in short, differences among children—make this goal of grouping difficult to achieve.

READING FOR A PURPOSE

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Yet it is because of these differences that grouping is used as an administrative device in the classroom. It is possible, however, to set up a yardstick by means of which the teacher can safeguard the child's interests. This yardstick can be described this way. In the first silent reading there should be no evidence of vocalization (i.e., silent lip movement, whispering, or low vocal utterance), no finger pointing, no head movement (this may also be caused by a functional vision problem), and no tension movements (i e , frowning, scowling, and exaggerated movements of hands, arms, legs, or body). In addition, research has indicated that a pupil should have difficulty with less than one word out of each twenty running words. If the child can measure up to this yardstick, he is in the right group. If he cannot, the level at which he can do silent reading successfully should be ascertained and he should be placed with the group reading at that level. When a child is given materials commensurate with his level of reading maturity, the symptoms of frustration mentioned above are not in evidence. In brief, the

success of grouping depends to no small degree upon placement of pupils in the right group

Purpose of Introductory Reading In the first part of a directed reading activity, readiness is developed for the introductory reading of the story. In one sense, the first reading also is a reading-readiness activity to prepare the pupils for the full appreciation of a story or the comprehension of an expositional selection. A directed reading activity is a sequence of learning events leading to appreciation and understanding During this process interests are extended, new reading vocabulary is developed, and reading skills are matured. Hence, there is no break between the development of readiness and the first reading.

The first reading of a selection should be a very pleasant and interesting experience. From this silent reading the pupils grasp the general plot or main idea, identify the sequence of events, and obtain help on pronunciation and comprehension difficulties The first reading should move along rapidly under the guidance of the teacher so that meaning

is emphasized and enthusiasm is maintained.

Enlisting Pupil Interest and Effort Through Questions. The first reading of a selection should be entered into with zest for the purpose of getting a feeling for the wholeness of the story. When the selection is short or when the group has insufficient reading maturity, the first reading may be done in response to the general motive question. If the story appears to be too long, guiding questions should be set up to lead the group through each incident of the story. The pupils then read silently to answer each question. Following the guided silent reading, the pupils answer orally the question or questions, talk over the incident, raise questions about the illustrations and content, and speculate on the outcome of the story.

The purposes for which reading is done dictate the rate of reading and control the depth and accuracy of comprehension. Hence, the motives for reading control not only the zest with which the activity is entered into but also the degree to which critical comprehension is developed. In a directed reading activity, the types of guiding questions employed for leading the pupils through a given selection merit careful consideration. Hence, they should be varied (1) to stimulate reading between the lines and the getting of facts and (2) to foster vocabulary development. The sequence in which questions are raised may aid the pupils' understanding of the author's *organization* of information or the plot of a story.

The use of *teacher* questions, suggestions, and comments for guiding the survey reading or the rereading can be overdone. In the main, effective teaching is based on learner needs in the sense that the pupils should have personal problems to be solved. In a learner-centered school, the teacher and pupils co-operate in setting up learning goals. The use of basal readers does not preclude this possibility, but when the suggestions

given in teachers' manuals are followed too literally, there is a very real danger of a directed reading activity deteriorating to a "hearing-lessons" level.

The first pitfall to be avoided, then, is that of a one hundred per cent teacher dictated establishment of goals. When it is necessary to guide the survey reading rather carefully, the pupils' comments and questions should be mixed liberally with teacher guidance. Spontaneity should characterize the reading situation with resulting pleasure to both pupils and teacher. This catering to pupil interests is not done to "sugar-coat" a prescribed reading "pill" but to recognize a basic principle of learning; namely, begin with the interests and needs of the learner.

A second pitfall to be avoided is that of repeating pupil questions and answers to questions. An inexperienced teacher often falls into the bad habit of serving as a loud speaker for each member of the group. Instead, the pupils should be taught to address their comments, suggestions, and questions in a voice that can be heard. Good habits of attention and rapport among children are established when there is a need for listening to the *first* statement of a suggestion or question. Habits of inattention are fostered in a situation where questions and answers are repeated often by the teacher. In classrooms where this constant reiteration holds sway, morale is usually at a low ebb. Questions may be of use in the following ways:

1. *To Get Facts.* It is very easy for a busy teacher to fall into the habit of directing a reading activity by using only one type of question; namely, calling for the identification of facts. Examples of factual-type questions include: "How many kittens did Tabby have?" "What color were the chickens?" "What is Mr. Brown doing?" "Look at the picture and tell where Mary and Bob were." "What happened when Bob looked at the chicken?" "Read what Bob said to Billy." While factual questions are to be used for

directing a reading activity, an over-emphasis on this type of question is a detriment to critical interpretation and other important aspects of reading.

2 To Get Inferences Inferential type questions foster the development of the ability to read between the lines. This type of question—sometimes called thought, judgment, or reasoning questions—encourages the pupil to draw on his previous experience, to evaluate critically the immediate context, and, in many instances, to draw conclusions or to apply the information. Examples of this type of question include:

"Were the kittens lively or lazy?" "Where do you think Mary is going with the book under her arm?" "From this story, what kind of man do you think Benjamin Franklin was?" "If someone sent you a panda, what would you do with it?" "Does a pilot need to know much about arithmetic?" "Would you call this way of plowing *primitive*?" "How does the mileage covered in the first four hours of a clipper ship compare with that of the fastest merchant vessel ever built?" Inferential-type questions are a far cry from the outmoded admonition, "Think," because they give the pupils good reasons "to think" The mass of propaganda thrown at the average citizen makes it mandatory for the schools to put the development of critical evaluation on a systematic basis The use of a basal reader need not be a handicap to the fostering of this crucial reading ability.

3 To Insure Working Concepts. In addition to factual- and inferential-type questions, the question or direction which arouses interest in vocabulary and clarifies concepts has a very important place in guiding a reading activity Questions of this nature include "Is Bob on the *upper* or *lower* part of the bus?" "What kind of animal do you see?" "What is the difference between a dog and a puppy?" "What word in the story has about the same meaning as the word *reward*?" "Do you think Benjamin Franklin worked

hastily or *leisurely*?" "Point to the *bow* of the ship in the picture." "What are *companionways*?" "What does *vaccinate* mean?" "What is a *century*?" "What is a *legend*?" "Do you know any Indian *legends*?" "Do you know a *legend* told about George Washington?" Guidance of this type may be used to appraise vocabulary and adequacy of concepts and to promote discussion and other activities to remove pupil shortcomings in these respects.

4 To Relate Previous Experiences. At all times, questions and discussions should give an opportunity for relating previous experiences to reading Guidance of this type includes. "What kinds of animals did we see on our trip to the zoo?" "What games did the children play at the birthday party you attended?" "What have you read or heard about ancient Greece?" "In what other situations have you heard of *molting*?" "How do these bears differ from those we read about in previous stories?" "What have you already learned from this book about animals in the far north?" "What things have you heard or read about atolls?" Background questions such as these assist pupils in relating their experiences and, therefore, improve comprehension. Whenever possible, the selection under consideration should be related to current events to facilitate immediate application of learnings.

5. To Get Main Idea One of the chief purposes of the general motive question to guide the first reading is that of directing attention to the main idea of the selection Elsewhere in this discussion, the statement has been made that children with fairly mature reading habits can achieve the first reading of a selection in a basal reader in response to a large pivotal question. However, children at all reading levels, including reading readiness, should understand that the title usually is the key to the main idea of a selection. In fact, successful kindergarten and primary teachers emphasize the selection of appropriate titles

to give the main idea of experience records, or class-dictated compositions. This attention to the main idea of a story, or expositional selection, should be continued throughout the elementary-school program.

6. *To Assist with Word Recognition.* One of the confusions often evidenced in the "reading" of a pupil who is word calling rather than reading for meaning is reversals. For example, the pupil may read, "Bob was the kites," for "Bob saw the kites." Errors of this type may be avoided by guiding the reading with carefully chosen questions such as, "What was it that Bob *saw*?" Many word-recognition problems of this type can be prevented by systematically directing the attention to meaning.

7. *To Stimulate Interest.* While the above-mentioned types of questions enhance the interest value of a selection by directing attention to the semantic, or meaning, import of material, special attention should be given to questions which directly stimulate specific interests. A general direction such as "Read the first two lines (or the first paragraph)" has little justification. On the other hand, questions of this type add zest to the reading: "How would you like to travel in a transport plane?" "Now read the sentence that tells what happened to the monkey." "What part of the story do you like best?" During, or immediately after, the first silent reading, the pupils should be given time for a spontaneous discussion of the selection. This permits a sharing, extending, and intensifying of interests as well as the developing of vocabulary, concepts, and the like.

Another way to stimulate interest in a story is to pause during the silent reading for the purpose of speculating on the outcome. This procedure has the added advantage of encouraging the pupils to anticipate meaning. The remainder of the story is read to see who guessed right. Considerable group interest can be developed in this way.

8. *To Call Attention to Organization.* In a directed reading activity, the pupils should read not only to get main ideas and details but also to relate them. This requires a feeling for the sequence of events and the ability to organize information. Discussions of the content may lead to listings, or one point outlines, of the furnishings of a stateroom or the steps in making a vegetable dye. Then again, the reading of a story may be followed by the preparation of a dramatization, the writing of a play, or the staging of a puppet show. Activities of this type contribute to the grasp of the wholeness of a selection.

9. *To Promote Versatility.* At all times, the teacher should encourage the development of versatility in reading. One motive for reading may require *skimming* to locate a word, a phrase, a sentence, or a paragraph pertinent to a given question. Another motive for reading may require a *rapid reading* to get a main idea or to form a general impression. Still another motive may require a *careful study* of the content to obtain details for an opinion or to understand the steps in a process. These different ways of reading to answer different types of questions should be explained to the pupils and they should be given specific guidance in using them.

10. *Questions: In Summary.* The silent reading should be carefully guided to serve the following purposes:

I. To stimulate interest in the selection
II. To develop the habit of reading for a purpose
III. To tie in previous experiences
IV. To insure vocabulary control and working concepts
V. To develop the ability to get facts
VI. To foster reading between the lines
VII. To promote versatility
  A. To develop facility in skimming
  B. To develop rapid reading skills
  C. To develop study skills
VIII. To develop ability to get the main idea of the selection

IX. To promote wide reading

X. To encourage the use of the dictionary

   A For pronunciation

   B. For meaning

XI. To encourage use of context clues

XII To cultivate word perception skills

XIII To develop understanding of sequence and organization

Questions and problems proposed by children sometimes are more to the point than those devised by the arm-chair method of textbook authors. This is as it should be because the authors must prescribe the questions for two reasons First, the questions are starting points for group discussions and may be used to call attention to the organization of a selection and the essential items Second, in schools where regimentation prevails the only questions used to guide the reading are those posed by the author

Here is a sample situation of how the pupils of an advanced sixth-grade class raised questions beyond the limitations of a basal reader selection. This sixth-grade group, working under the guidance of Mrs. Ruth Schumacher, Manheim (Pennsylvania) Borough School, asked for information on these questions during the study of a group of selections on the *Wonders of Nature.*

Of what are clouds made?

Why is the air thinner as you go higher?

If heat rises, why does ice form on the wings of planes?

What causes thunder and lightning?

Why do we have seasons?

How are volcanoes formed?

How does the bombing of volcanic fissures stop the flow of lava?

How can scientists predict volcanic eruptions?

What causes earthquakes?

How can scientists tell there is no life on other planets?

Are telescopes large enough and powerful enough to see whether there is life on other planets?

Is there atmosphere around the other planets?

Could Lake Ontario or Lake Erie become dry without the other Great Lakes drying up?

During the time these topics were under consideration, Mount Vesuvius erupted. As a result, magazines and newspapers were read avidly. Additional research was done in encyclopedias, science books, and the *National Geographic.*

Word Recognition When the group has been adequately oriented for the first (silent) reading, comprehension problems should be relatively few. Many of the needs will cluster around word recognition and interpretation of punctuation.

If the children are grouped properly, they should experience little difficulty with the silent reading. Before the silent reading, the "new" reading vocabulary will have been brought out in the discussion, and there may have been a good reason for listing the "new" words among the other "old" words on the blackboard. Not more than three to eight new words, depending on the grade level of the books, are likely to be encountered in the reading of a single story In fact, the average child, especially in the lower grades, usually cannot assimilate more than six to eight new reading words in a day. In most schools where basal readers are used, at least one directed reading activity is provided each day.

In order to have the silent reading flow along with a minimum of interruptions, the child should be helped immediately with word-recognition or comprehension problems Neither the orientation nor the first reading in a directed reading activity is to be used as a drill period. When drill on word perception is necessary, the teacher should reappraise the reading levels of the pupils Since a child placed in an appropriate group for a directed reading activity is likely to encounter, on the average, only one word-perception problem in about forty to sixty running words, calls for assistance from pupils well trained in the use of context clues should be infrequent. However, all pupils should be taught to seek help on the removal of word-recognition and comprehension obstacles encountered in the

first silent reading It is just as important for a child to be aware of word-recognition errors in reading as it is to have a spelling consciousness in writing activities. The chief point here is that assistance should be given immediately on individual problems during the silent reading in such a way that the intelligent grasp of the story is facilitated.

There are several ways in which the teacher may help individuals with their word-recognition problems during the silent reading with a minimum of distraction. First, the child should be encouraged to use the context or the picture to call forth the word. The use of context clues is one of the most important word-recognition aids to be emphasized from the time the child is first introduced to reading. The use of context clues or picture clues can be fostered by a clearly stated question such as, "What was the first thing Bob saw when he entered the store?" Or, "What does the picture show Jack is making?" Or, "What color was the dog?" Then again, a sug-

gestion may be made which will direct attention to the context, such as, "Find out what the rest of the sentence tells you." This type of help is especially worth while because it focuses attention on meaning. Second, the child should be helped to use word-analysis skills previously learned when the context or the illustration cannot be used as a word-recognition aid. For example, by covering the *be* in *maybe*, or the *ner* in *dinner*, with a marker, the child may be quickly assisted in pronunciation. This analysis should be done as quickly and as unobtrusively as possible Word analysis of this sort should always be followed by calling attention to the meaning of the sentence and putting the child back on the track of the story. Third, there are times when telling the child the word is an approved pedagogical procedure. This would hold true when the beginning pupil has very few word-analysis skills, when the word cannot be brought out quickly by context clues or word analysis, or when the word does not

conform to phonetic principles The information can be given by whispering the pronunciation to the child or by pronouncing it aloud to the class In some instances, especially in beginning reading where the silent reading is being guided with very specific questions, it is possible for the pupils to profit from the teacher's writing the word on the blackboard. This should be followed by the pupil's locating the word in the context to give practice on visual discrimination and to provide for transfer of learning from blackboard writing to printed symbols In summary, help on word recognition during silent reading can be given by guiding the child in the use of picture clues, context clues, and word analysis or by telling the child the word

It is always wise for the teacher to make a record of individual word-recognition problems in order to give direction to the succeeding activities in a directed reading period. This record serves two purposes individual needs can be identified and the specific nature of the word-perception difficulties can be studied There is no need for drilling the entire group on a word when only one child has experienced difficulty with it Furthermore, many word-recognition difficulties can be typed, or classified, and reduced to one or a few specific problems. For example, the child may need help on consonant blends, consonant digraphs, short vowels, words ending in a final *e*, vowel digraphs, or some other specific phonetic problem By keeping a record of word-perception difficulties, the teacher can diagnose the child's problem on the spot and, therefore, is in a position to give specific guidance to prevent further difficulty

In conclusion, the *mastery* of the new reading vocabulary is not the chief purpose of the introductory reading. The development of word-perception skills follows the silent reading The silent reading does allow the pupils to meet the visual forms of the new words in context for the first time. This causes the child to

be aware of his specific needs in this respect and, therefore, motivates him to do something about them in subsequent activities The chief purpose of the silent reading is to get the main points of the story, not to *master* vocabulary. While systematic help is given on word recognition during the introductory reading, this help serves the purpose of facilitating the reading.

Use of Guides In beginning reading, some pupils may be helped by providing them with a one-by-five-inch oak-tag or cardboard marker or guide The use of such a "crutch" should be discontinued as soon as each pupil has established adequate left-to-right progression and return sweeps In other words, a guide, or marker, is used as a temporary expediency

Guiding the First Reading· In Summary. The first reading to get the wholeness of a story or expositional selection is always done *silently*. During the first reading the child is encouraged to ask for any kind of help he needs To stimulate interest, to enlist effort, and to cause the child to come to grips with the meaning, this silent reading is guided by suggestions, comments, and questions. Throughout this part of a directed reading activity, the mechanics of reading should be subordinated to the thought or meaning. Above all, the child should feel that the first reading is an interesting and worthwhile experience.

Study habits should be developed simultaneously with reading ability. In fact, if the *reading-to-learn* instead of the *learning-to-read* approach to beginning reading is made, the first reading of a unit will be guided so that study rather than thoughtless word calling will be the order of the day. The statement has been repeated frequently in the literature that one of the aims of silent reading is to get the thought while one of the aims of oral reading is to interpret the thought for others

Practice makes perfect that which is practiced; therefore, it is desirable to

practice on the development of silent reading and study habits before reading orally in order to clear difficulties which in turn contribute to rhythmical, efficient, and thoughtful readings. Purposeful reading is encouraged by creating an interest in the content, by tying in the new experience with the personal background of the learner, by framing a general purpose for the reading, by directing pupils through the first reading or study with guiding questions, and by systematically extending the reading vocabulary. Rhythmical reading which contributes to an increased rate of comprehension is developed by creating situations where thoughtful and purposeful reading is required. As suggested above, properly conducted study during the directed reading period will go far toward the elimination of mere memorization.

The art of motivating and directing learning through skillful questioning is still important. Reading motive is a term usually used to designate the major need or purpose of the silent reading during a directed reading period. Guiding or leading questions refer to those specific questions used by the teacher for the purpose of keeping thought foremost and guiding the pupils in the first silent reading. Following, and sometimes during, the first silent reading, thought questions are used to stimulate inferential thinking, depth and accuracy of comprehension, and the like. It should be noted that *there is no standardized terminology for designating different types of questions.*

DEVELOPING WORD-RECOGNITION SKILLS AND COMPREHENSION

Frequently it is necessary to follow the first reading of a basal-reader selection with specific help on word recognition and other aspects of comprehension. This part of a directed reading activity is referred to in teachers' manuals in various terms: *extending skills and abilities, practice period, silent reading followed by check, related practice, word study, comprehen-*

sion development, phrase and word study, further practice, mastery of vocabulary, oral check exercises, discussion of the content and vocabulary study, mastery of vocabulary, checking on achievement, and vocabulary and thought development. From these labels, it is clear that the emphasis is on word recognition as it contributes to comprehension. Not always is it necessary to follow the first, or survey, reading of the whole story with specific guidance on word recognition, however, this is a strategic time to knock out these barriers to fluent reading so that the rereading can be achieved with facility. The introductory reading has served to make the pupil aware of his needs in this respect.

Needs during this part of a directed reading activity should be cared for very quickly, if the children are grouped according to their levels of achievement and reading needs. Practice in dealing with words and phrases at this point in a directed reading activity is usually necessary in order to insure fluent rereading. The amount of practice will depend upon the specific needs within the group. Needs from group to group may be expected to vary widely. The chief point to be made here is that *specific* needs should be met in a clean-cut manner. If the problems encountered are many and varied so that extensive work must be done at this time, then the teacher should reappraise the adequacy of her grouping procedures.

From the above it is clear that the approach to reading should be made through meaning rather than entirely through the analysis of word forms. This does not mean, however, that the mechanics of word recognition should be sacrificed entirely. Although meaning should overlay the entire reading program, the building of a foundation for independent methods of word attack requires some attention to the elements of word forms. Aids to the recognition of words include (1) recognition by the general configuration of the word form, (2) the noting of word details; that is,

problems and for identifying word-recognition needs requiring immediate attention. In short, rich experiences resulting from the spontaneous comments of the group should be provided in a directed reading activity.

Discussions should not be used to hammer home the moral of a story *ad nauseam* and to teach "appreciation" by tearing apart the plot and overanalyzing a selection. In this respect, a balance should be achieved between a careless treatment of a story or literary selection and a too-detailed analysis. Appreciations and desirable attitudes toward literature are fostered in situations where children like to reread an interesting selection on their own, quote an appealing bit of language rhythm, or to refer to a highly interesting or exciting episode.

Vocabulary and Thought Development: In Summary. New words are usually introduced incidentally in the conversation or discussion of the story unit *before the first reading.* Systematic guidance on difficult words and phrases is usually necessary *before rereading* in order to make possible both a thoughtful and fluent response. Since immediate correction of difficulties is pedagogically desirable, such practice should ordinarily occur during the class period in which the first reading was made. When words and phrases are presented in isolation in the chart holder, on flash cards, or on the blackboard, steps should be taken to transfer the perceptual ability thus developed to the identification of the word or phrase in the context. Vocabulary drill and reading may be two different things unless word-recognition practice is given in terms of pupil needs.

Abundant opportunities should be provided for working out "new" vocabulary in contextual situations. After all, *that* is the type of practice needed for developing abilities which will be serviceable in typical reading situations. This is a crucial point in a program of beginning-reading instruction that is designed to *prevent* reading difficulties. No child

should be asked to proceed from one reading unit to another until the reading vocabulary previously encountered can be recognized in varying contexts so that he has *some grasp of word meanings* as well as the ability to recognize the word. If systematic development is interrupted or does not take place, a "hit-and-run" attitude will be practiced.

When *elaborate preliminary drill is necessary* before proceeding with the first reading of a given unit, the teacher should make an inventory of the abilities of her pupils, the vocabulary burden of the material, the adequacy of supplementary reading activities, and the efficiency of her teaching procedures. Thought, as well as the interest of the pupil, is usually stifled when attention is prolonged on word meanings and word-recognition drill.

Although no researches on the ratio of new words to the total number of running words offer conclusive data on the subject, it is quite generally agreed that beginning materials should contain no more than one new word to each thirty or forty running words. In order to meet this requirement, most of the recent preprimers contain no more than three new words per page, which are supplemented *with other reading activities such* as the use of workbooks. But who would expect that Educator A could scientifically determine the ratio of new to known words for a group of children in Community Y? After all, education is a personal matter, and when self-teaching materials have been developed for seven-year-olds, education as now defined will cease to exist. In short, the teacher must be one of the fastest learners in the classroom because she must be a student of the individual needs of her pupils.

REREADING

In a directed reading activity, silent or oral rereading is usually done for several reasons: to improve comprehension and enjoyment; to enhance retention, or remembrance; to appraise read-

A Follow-up Activity

ing skills; and to facilitate rhythm and expression. These are professional reasons for reading a part or the total selection Children reread for sheer enjoyment, for specific information, to entertain others, and for similar reasons, depending upon whether the rereading calls for silent or oral responses Well-motivated *rereading is an excellent* means of developing fluency and versatility.

Generally speaking, the rereading should be done with facility There should be no *stumbling over unknown words.* Occasionally, however, rereading is done during the first reading to clear up points not understood By and large, though, the rereading of a story is for sheer enjoyment; hence, language or concept obstacles should be removed before the rereading is undertaken As a result of competent rereading, pleasure is enhanced, desirable attitudes are de-veloped, and a sense of security in reading situations is achieved.

Rereading should be highly motivated so that every pupil participates in the activity. The need for rereading grows out of group discussions and group planning

When to Reread The rereading may be done during the silent reading part of the directed reading activity or after the first reading, depending on the nature of the selection, the reading maturity level of the pupils, and the necessity for rereading to clear up problems There *are occasional needs to be satisfied by* rereading parts of a story during the guided silent reading. Sometimes, however, the rereading of the total selection is done during another period in the day or on the next day. When, for one reason or another, the first reading of a selection requires more than one period, oral rereading of the previous parts may be

used to stimulate interest and pick up loose ends before continuing with the silent reading.

Purposeful Rereading. So far as the child is concerned, the rereading should be done for intrinsic purposes. That is, the rereading should be done to satisfy a need close to the interests of the pupils. Some of the purposes for rereading a part or the whole of a selection may be summarized as follows:

I. To illustrate a story or some one part of a story

II. To dramatize a story
  A. To identify characters
  B. To assign parts

III. To prepare for a puppet show

IV. To tell a story

V. To select a story or expositional selection suitable for a special occasion

VI. To find statements for settling controversial issues raised during discussion

VII. To find the sentence liked least

VIII. To find the sentence which gives the main point of the story

IX. To find descriptive or interesting words, phrases, sentences, and paragraphs

X. To prepare or to complete a workbook activity

XI. *To enjoy a story by assigning parts to individuals in the group*

XII. *To answer questions*

XIII. To compare the selection under consideration with a selection read previously

XIV. To read the story in an agreeable manner to another group

XV. To interpret a story or expositional selection in terms of previous experience

At all times, children should know why they are engaging in a *first silent reading* or in a rereading. Reading without a purpose is like trying to steer a ship without a rudder; it doesn't get one anywhere in particular. To insure a valid purpose for rereading, it should be done for reasons not previously used in the first, or silent, reading.

Silent or Oral Rereading? The aim of silent reading is to *get the thought;* the aim of *oral* reading, to *express it.* There are at least two significant differences between silent and oral reading. First, silent reading is a much faster process than oral reading. Second, silent reading is an individual matter, while oral reading is done in an audience-type situation. Silent reading is used more often in life situations, but oral-reading ability is a most crucial one in many social situations. Whether silent or oral reading is used in a given situation depends upon needs; however, both abilities should receive attention in directed reading activities.

The need for oral reading decreases as the pupils progress through the elementary school. However, the amount of oral reading *should not be decreased to the zero point at any time.* Furthermore, some selections do not lend themselves readily to oral interpretation. On the other hand, there are occasions when oral interpretation is essential to full appreciation and enjoyment How much oral rereading is required is a matter of teacher judgment aided by author suggestions in the teacher's manual As independence in reading has been achieved gradually, more time is given to silent-reading skills.

The answer, then, to the question, "Should the rereading be done orally or silently?" is clear-cut: both types of reading are used The type of content, the needs of the pupils, and the maturity of reading habits dictate the emphasis on oral reading.

Oral Rereading. Oral reading should be done fluently. This requires rhythm, *accurate interpretation of punctuation, accurate pronunciation of at least ninety-nine per cent of the running words,* and the use of a conversational tone that is *loud enough for everyone in the group* to hear easily. The pupil should be *taught good posture and relaxation. In order to facilitate oral interpretation,* the teacher should give immediate help on word recognition. If the pupil is blocked by word-recognition problems

or a lack of understanding of the selection, his lack of readiness for the oral rereading should be analyzed at once. Without attempting to make elocutionists, the teacher should insure fluency in oral reading.

Considerable help in oral reading is given when the teacher enters into the activity herself. This can be done by playing the part of mother or some other adult character and in such a way as to add zest to the whole activity.

1. *Use of Conversational Tone* The norm for oral reading is a conversational tone. In acceptable oral reading, rhythm is achieved by careful phrasing and correct interpretation of punctuation. A well-modulated voice is possible when oral reading has been preceded by silent reading and the clearing away of word-recognition and comprehension problems Word-by-word reading and the use of a high-pitched, strained voice are symptoms of frustration induced by incompetence to deal with the reading material. When these symptoms appear, the teacher usually can be assured that the pupil is attempting to read material that is too difficult The remedy in this instance is to take the child back to a lower level at which he can achieve desirable reading habits. When a child is bogged down in material that is too difficult, there is little point in insisting upon reading in a conversational tone It simply cannot be done without memorization of the content

A second reason for an inability to read in a conversational tone is lack of silent-reading preparation Here, again, no amount of silent reading or study will produce effective oral rereading if the child is frustrated by reading material that is too difficult for him Some beginners may not be able to satisfy the prerequisites for book reading, more mature pupils experiencing difficulty may need to have their background deficiencies removed by reading materials at lower levels (10). If the child has no symptoms of difficulty in silent reading—such as lip

movement, finger pointing, and tension movements—but still is unable to do satisfactory oral reading, additional silent-reading preparation may be required.

A third reason for undesirable oral rereading may be the emotional situation in which a child is placed. An insecurity in oral-reading situations may be induced by a speech defect, an unfavorable audience-type situation, or a lack of motivation. Speech defects should receive immediate attention and some type of adjustment to the problem should be attained The members of the group should be motivated to listen to the oral rereading by having a reason for attention Then, too, the efforts of the reader should be enlisted through the establishment of clear-cut purposes. The teacher is the key factor in developing desirable emotional tone in the social situation for oral reading

A lack of rhythm in oral reading situations may be complicated by neurological involvements Fortunately, this type of problem arises infrequently Cases of this type must be diagnosed by a reading clinic specialist with the help of a neurologist.

The habit of reading in a conversational tone should be established at the very beginning and should be fostered in all oral reading activities Word-by-word reading and the use of the high-pitched voice have no place in reading situations Intelligent analysis of pupil needs rather than brute force insistence should characterize the situation.

In order to develop the ability to read in a conversational tone, the child needs to have a good model to follow as well as specific suggestions and comments on how to improve Through storytelling and reading aloud to the pupils, the teacher can provide good standards of oral reading. As individuals gain in reading maturity, they, too, can serve as models Specific, constructive suggestions should be given to encourage good oral reading. One child may be en-

couraged to read as he talks; that is, to talk the story. Another child may be helped by suggesting that he read a conversational part as he believes Bob talked. Still another child may need the reminder to let the group know what is happening by the way he uses his voice. Occasionally a pupil may be engaged in conversation immediately preceding the oral reading and then, following first oral reading, reminded to read in the same tone of voice. In general, however, the emphasis should be on the author's meaning rather than on the mechanics of oral reading.

2. *Audience-type Situation* Oral reading is done usually in social situations. This means that an audience of one or more persons is present. It also means that the listeners are attentive because they are to profit personally from the oral reading. Herein lies a possible pitfall for teachers who depend for the most part on the basal-reader approach to reading instruction. If every child in the "audience" sits with a copy of the selection in his hands and watches like a hawk for errors, most of the value of the oral rereading is lost. The teacher's problem, then, is resolved to that of setting up oral rereading situations which make audience-type reading possible.

A variety of oral rereading situations has been used by enterprising teachers. There are occasions when one group may read to another group in the room. A child or the teacher reads the narrative parts while conversational parts of each character are read by pupils in the group. Another type of situation is set up when the illustrations are covered and the whole story is read by various members while the remainder of the group visualize and enjoy the story. Interest can be further stimulated by covering the verbal context and telling the story from the illustrations. Some stories lend themselves to choral reading activities in which conversational parts are read by individuals and the class joins in on rhythmical narrative parts. Then, too,

the pupils may take turns in reading the most interesting, exciting, or funniest parts of a story to the group. Children also may be motivated to read the one sentence that best tells what happened in the accompanying illustration. There are numerous possibilities for directing the oral reading activities so that audience-type reading is possible.

Discussion periods in which standards of oral reading are considered and stated are most profitable These standards should be set up by the children under the guidance of the teacher. The standards should be stated simply, such as: "Read as you talk." "Read so that everyone can hear." "Look at the audience once in a while." These standards should be definite, understandable, and attainable. Furthermore, they should be used in such a way that each pupil is aware of progress Whatever standards are established should grow out of the pupils' oral reading activities.

Silent Rereading. This type of rereading should be done easily and well. If the pupils are ready for reading at this level and if they have had sufficient silent-reading preparation, only minor difficulties should be encountered. The silent-rereading rate should be considerably in excess of the oral-rereading rate. There should be no evidence of tension, finger pointing, vocalization, head movement, or other forms of frustration. As in oral rereading, not more than one word in one hundred running words should be a recognition obstacle. One of the chief purposes to be served is fluency and versatility in silent reading.

As in oral rereading, silent rereading may be required before the first reading is completed. As the pupils mature in their reading habits, an increasing amount of rereading will be done after they complete the first reading of the whole selection. The silent rereading of the whole selection may be motivated by having the group read to formulate a one-sentence summary of each episode or incident of the story. This type of ac-

tivity calls attention to the time sequence. Then, again, a story may be reread to obtain all the descriptive statements about a character. The silent rereading may emphasize skimming skills to verify statements made in the group discussion or to locate bits of interesting information. Silent rereading is called for when pupils read rapidly to find what parts are liked best. Silent rereading may be called for when the pupils are preparing to take parts in a dramatization of the story or to present a puppet show. These provide ample reasons for silent rereading.

Rereading: In Summary The rereading part of a directed reading activity is sometimes referred to in teachers' manuals as *the final reading of the selection* The first reading is always done silently; the second reading, orally or silently. By motivating the rereading with questions, suggestions, and comments differing from those used to guide the first reading, the teacher develops silent and oral reading fluency. In addition, basic reading abilities—such as location of information, selection, evaluation, organization, and comprehension—are raised to higher levels of efficiency.

Directed (accurate and purposeful) rereading of a unit of material contributes to comprehension, retention, organization, fluency, expression, and control over the mechanics of reading (such as word perception and rhythmical left-to-right eye movements). The rereading may be done silently or orally, depending upon the immediate needs of the group In some instances there may be a need for further help on the mechanics or on understanding before oral reading is attempted. *In no instance, however, should the pupil be allowed to practice error by reading orally without adequate preparation.*

In connection with rereading the following statements should be evaluated:

1. A motive, incentive, or real reason should be established for the rereading At no time should the rereading be carried to the point of memorization In order to avoid this situation, it is well that each rereading be motivated by different purposes, such as reading to find specific statements, to identify various events, to locate the most interesting incidents, or to prepare for an informal dramatization or related activities Properly motivated rereading is valuable for developing through understanding and fluency.

2. If an oral rereading situation is created, adequate preparation should be made in order to avoid word-by-word reading.

3. The reading of a unit, or episode, or story should be concluded with a summary of the thought.

Follow-up, or Culminating, Activities

Developing Facility in Study Aspects of Reading. A directed reading activity is usually followed with individual and/or group activities in order to develop facility in applying skills, abilities, and information and, in some instances, to appraise individual needs. This follow-up is discussed under a number of headings in teachers' manuals: *individual or group activities, related activities and seat-work, correlated activities, application and extension of ideas, extending abilities and interests, supplementary practice, in-between class periods, seatwork activities, quiet period activity, follow-up activities, and word study, supplementary activities, and workbook.* Up to this point, in a directed reading activity emphasis has been on language-experience readiness, silent reading to survey the story, group difficulties, and rereading for full enjoyment and appreciation. At this point, there is a turn of events. Attention is focused on the study aspects of a directed reading activity.

The purposes of the follow-up may be described as follows: First, experiences and interests are broadened and cultivated. Through the follow-up the children are guided into materials and activities that build sound foundations for many and varied interests. This extending of interests and experiences promotes the development of well-rounded and wholesome personalities. Second, facility is developed in using books and other materials related to major interests. Facility in locating of information is a major goal of reading instruction, but *this goal cannot be achieved when reading activities are limited to basal textbooks.* Third, effective independent study

habits are nurtured by means of supervised study periods. In the beginning, many of these activities are developed around the workbook. Fourth, individual needs are cared for during the follow-up period. These needs run the gamut from word recognition through organizing skills. In general, the follow-up embraces both individual and group activities which encourage the pupils to apply and extend skills, ability, and information gained from the directed reading activity.

Types of Follow-up Activities. For discussion purposes, the follow-up may be divided into creative activities, study activities, extended reading, and games. Creative activities include dramatization of stories, dramatization of related stories, preparation and presentation of plays related to the unit, orange-box movie strips illustrating the sequence of important episodes, writing stories about personal experiences related to the story, planning and following up on excursions, and group development of experience records. Study activities are developed around the workbook, comprehension checks, word-recognition drill, and charts and the blackboard. Extended reading activities may or may not be closely related to the basal-reader unit, depending upon individual needs for re-enforcement of word-recognition skills or for extending background of related experiences. The authors of teachers' manuals usually provide the teacher with a selected list of rhymes, stories, poetry, and related children's literature. At lower-grade levels, the manuals also contain suggestions for games designed to foster the development and application of auditory- and visual-discrimination skills.

1. *Discussion.* Through discussions during the directed reading activity the pupils are given opportunities to use words and to review them immediately in the verbal context of the selection under consideration. This is one legitimate means of assisting the beginner in his association of meaning with printed symbols.

A second use of discussion in the follow-up activities is the clearing up of comprehension problems by setting up questions and problems to be solved by further reading, observation, or experimentation. If the development of the first story in a unit is well done, the pupils will see a real need for bringing in a richer background. This is especially true in the intermediate grades where a knowledge of history, geography, and science is essential background for understanding, appreciation, and critical interpretation.

Discussions following the reading of a basal-reader selection should challenge the group to make critical reactions and judgments. These types of evaluations of ideas gained from reading are valuable summarizing and culminating activities.

Discussions are valuable in developing concepts and extending vocabulary. When used in a follow-up activity, the pupils have ready access to the verbal context out of which the discussion grew. Discussions for this purpose may include suggestions for a better title or subtitles, the recall of descriptive words and phrases that are particularly interesting and expressive, and an appraisal of the words giving clues to the author's attitudes, mood, and intent. As these discussions progress, interest in language is stimulated and critical interpretation is enhanced.

2. *Organization of Ideas.* Organization of what is read is essential to critical comprehension and to retention. Too often, organization takes highly verbal and abstract forms such as outlining and summarizing. These verbal ways to organize information should be systematically developed from the time the child first encountered reading, but other ways of organizing ideas gained from reading should be taught also. At lower-grade levels, pupils sense sequence of ideas and the like by preparing dramatizations, orange-box movie strips, charts, and booklets, by assembling and labeling collections, and by following directions in performing simple experiments in construction activities. Later in his elementary-school career, the child learns still other ways to organize ideas by means of *graphs, pie charts, maps of different types,* and *art projects.* Ideas organized to serve a personal goal are not soon forgotten.

3. *Browsing.* All pupils should have the privilege of browsing occasionally at the library table, or reading center. Through browsing, the pupils become acquainted with books and acquire tastes for reading. An opportunity to peruse books at random is a joy at all age levels.

4. *Silent and Oral Reading Games.* A variety of reading games is recommended in teachers' manuals and professional publications. Most of these games emphasize visual and auditory discrimination. When used with discretion, games tend to improve social relationships among the group and stimulate interest in reading.

A type of game commonly employed for developing auditory discrimination is that in which the children listen for words that begin like *Jane* or rhyme with *back.* The teacher usually, but not always, serves as the leader so that specific skills are developed.

For developing visual discrimination, flash-card games are often used. For example, children like to play "It." This is done by selecting one child to be "It." He distributes flash cards to each member of the group. Someone is selected and he says, "May I enter?" The other child replies, "Yes, if you have the key." The key in this case is the reading of what is on the flash card. If the reading is done successfully, the one who held the card becomes "It" and the procedure is repeated with another child. The chief problem with games of this type is the selecting of those that encourage every-pupil participation.

Blackboard games may be used legitimately in developing visual discrimination. For example, the teacher may write a vertical row of words on the blackboard and then rearrange the same words in another vertical row beside the first

row. Two children run races in finding each word in their respective rows as the teacher pronounces it. The remainder of the group serves as judges. If every member of the group participates in games of this type, the major purpose of developing visual discrimination is served.

5. *Independent and Group Research Activities.* The wanting-to-knowness of children should ever be encouraged. Basal readers may be used in a humdrum fashion to stifle interests, and to retard growth in reading if the teacher merely hears lessons. On the other hand, an inspired and enthusiastic teacher may use children's interests to build strong and firm foundations for reading skills and abilities. Questions and comments during a directed reading activity may be capitalized upon by turning the attention to interesting sources of information.

One first-grade group, for example, read an interesting story about baby birds. Questions and comments like these came up: What kind of birds are these? We have a wren house. Where do wrens build their nests? Robins build their nests in low trees and shrubs. What bird lays blue eggs? How old is a robin when it learns to fly? All of these speculations led to digging into bird books, bringing abandoned bird nests to school, and an informal discussion with a parent who took the children on an early morning bird hike. As a result, the basal-reader selection took on new meaning.

Another first-grade group read a basal-reader selection on bees. The questions raised by this group "stumped" the teacher and proved challenging to an apiarist: How many kinds of bees do we know about? Do all bees sting? What does the bee get from the flowers? What kind of flowers do bees like best? What does a bee do with the juice it gets from a flower? How do the bees make wax? When do bees make honey? Is it right to steal honey from a beehive? Do bees eat all the honey they make? Why do bees swarm? How does a beekeeper start a new hive? What does a queen bee do? Is there a king bee? These and other questions kept every member of the reading group busy for a week. The unit was summarized on charts and by means of a display. While the pupils were rounding up the information they wanted, their reading skills were receiving a first-class test.

6. *Independent Reading.* Generally speaking, a child cannot do much independent reading until he has at least primer-"level" reading ability. This has several implications. First, preparation for workbook activities must be very thoroughly done in order to facilitate the development of independent study habits. Second, the children should be motivated to reread interesting basal-reader selections during free periods. Third, a liberal supply of picture books should be placed on display in the library corner, or reading center, to encourage the pupils to enjoy books. Fourth, the pupils should be encouraged to engage in art activities. While not all art activities must be related to the selections in the basal reader, some of them may involve illustrating a story in a booklet or the preparation of illustrations of episodes for "movie" strips. In general, then, all reading activities for beginners require careful supervision to insure the development of appropriate reading habits. Until the pupils have acquired sufficiently mature reading habits to engage safely in independent reading pursuits, they should be guided into reading-readiness activities that buttress the directed reading period.

As soon as possible, the children should be guided into independent reading. As stated above, the average child is ready to read on his own by the time he has attained first-reader-"level" reading ability. Growth in reading is speeded up by independent reading and, therefore, merits very careful consideration. Through independent reading, the child broadens his interest and experience, acquires a feeling of self-confidence and self-respect in reading situations, and

applies learnings derived from directed reading activities When a child first engages successfully in independent reading, he cuts the apron strings from the teacher There is no greater thrill than being "on your own."

In order to practice desirable habits of reading, the child should be guided in the selection of appropriate books He should be fully aware of what will be interesting "because he can read it." In independent, or free, reading, there should be no *vocalization, finger pointing, skipping over unpronounceable words,* or other symptoms of undesirable reading behavior This means that material selected for free reading should be considerably less difficult than the readability of the material in the basal-reader selections With a little expert guidance by the teacher, the child can "come into his own" with a great deal of satisfaction to himself and to others

In guiding independent reading, the emphasis should be on the content rather than the reading of a given number of books The intrinsic value of the content rather than gold stars and records on book charts should hold sway in the child's mind Sometimes, teachers use extrinsic rewards to stimulate competition among children This procedure sometimes carries over into the home and mothers enter into the competition —to the detriment of the child's mental health.

When a classroom library is limited to a basal set of readers and the accompanying set of workbooks along with sets of other basal textbooks, the reading environment is poverty-stricken indeed Furthermore, the possibilities of interesting follow-out activities are limited to a serious degree However, ingenious and untiring teachers have demonstrated many times how to overcome such handicaps. Parents can be interested in buying good books rather than cheap toys for presents. County libraries usually are heaped high with books that can be obtained by a reliable teacher for the ask-

ing. State libraries usually are well stocked and the librarians are merely waiting for a letter of request from the teacher and her pupils. Children learn to read best through the reading-to-learn approach. This requires a rich reading environment and a teacher who is interested in the personal questions and problems of her pupils.

Free reading leads to the development of permanent reading interests. The teacher should have in mind several criteria for evaluating free-reading activities, as for example: Do the pupils turn to books during free moments? Do the pupils bring out interesting bits of information obtained from reading during free discussion? Do the pupils take pleasure in recommending especially interesting books to their contemporaries? Do the pupils suggest that more information on a topic of discussion can be found in such-and-such a book? An enduring interest in books is a major goal of reading instruction.

7. Semantic, or Meaning, Development. By no means is a directed reading activity limited to the development of word-recognition skills, skimming, and rapid reading One of the most important aspects of reading is the development of semantic sensitivity; that is, an awareness of how language functions and of the intimate relationships of language to experience. In this respect, the teacher is confronted with two major instructional problems; first, getting across the idea that words stand for things in experience (word-fact relationships), and second, developing a feeling for the interconnectedness of language (word-word relationships). When these two problems basic to all language instruction are not carefully studied by the teacher, verbalism—that is, the use of empty words—and mere memorization are likely to hold sway in the classroom.

Upon admission to the first grade, very few children have learned to associate meaning with visual symbols unless they have had kindergarten experience. It is,

therefore, the first task of the teacher to assist the child in grasping this basic concept of reading: word-experience— or word-fact—relationships. Most first-grade entrants have learned to associate speech sounds with things for which they stand in these instances: *airplane, animal, apple, arm, bed,* and *chair.* Some primary-school children, however, with limited experience may have grotesque notions about the facts behind such words as *barn, bear, circus, city, country, policeman,* and *turtle.* Furthermore, some children—as the little boy in Saroyan's *Human Comedy*—may have experienced fear but may not know the label *afraid.* (Note: All of the sample words in this paragraph have been taken from the Betts *First Grade Reading Vocabulary Study.*) When oral language-facts, or oral language-experience, relationships have not been developed in the nervous systems of the children, they are likely to experience extreme difficulty in grasping the full import of visual symbol-fact relationships. The so-called mechanics of word recognition are inextricably related to the meanings of visual symbols, hence the teacher must always be on the alert not to emphasize the mere mechanical aspects of reading.

In developing semantic sensitivity, or an awareness of meanings, the teacher's first concern is with the development of control over the relationship between words and experience. Oral language facility in dealing with experiences is developed before an attempt is made to establish control over the relationship between visual symbols and experience.

One of the major goals of reading instruction is the development of independence in word recognition (that is, the recognition of visual symbols). Gates (38) and Stone (87) have emphasized the *intrinsic* approach to this problem of word recognition. In essence, the intrinsic method is a means of developing perceptual skills in contextual, or meaningful, situations. This brings us to the second major concern of the teacher;

namely, the development of sensitivity to the interconnectedness of language, or word-word relationships From the beginning of systematic reading instruction and as long as the individual continues to learn, control over word-fact relationships is extended and a sensitivity to the shifting of the meaning of words as the verbal context varies is heightened. Adjacent words in a verbal context cause the meaning of a given word to shift. For example, "The car is still *good,*" "Bob is a *good* boy " Then again, "John is *back.*" "Do you know how to *back* the car out of the garage?" "Billy hurt his *back.*" A child not only must learn how to use the context to recall an "old" word or to identify a "new" word in his reading, but also he must be sensitive to shifts in the meaning of a word brought about by changes in the verbal context.

A versatile reader has had a rich background of experience so that the verbal context has meaning to him Furthermore, a good reader has had sufficient experience with oral and printed symbols to associate a specific meaning with a word in a verbal context. In other words, a good reader is aware of the fact that a word has several possible meanings. The meaning to be associated with a given word depends upon the verbal setting for the word; that is, the phrase, sentence, paragraph, or the total selection in which it was used.

In the larger sense, comprehension results from the process of "reconstructing the facts behind the symbols." Reading materials for beginners are usually prepared in terms of the universal experience of children, thereby simplifying the process of obtaining mental constructs, or concepts. As children progress through the elementary school, their experiences are extended by direct and vicarious, or indirect, learnings. This combination of doing, observing, listening, reading, and so on makes it possible for children to take more to the printed page. This experience broadens comprehension so

FOLLOW-UP ACTIVITIES IN THE LIBRARY

that reading selections about the "Boston Tea Party," "Paul Revere's Ride," the action of Congress in defeating President Wilson's proposals, and the like may be interpreted in the light of a series of events leading up to a given discussion

The point of this discussion on semantic, or meaning, development is that the follow-up as well as the preceding steps in a directed reading activity should emphasize the broader aspects of comprehension and critical interpretation Reading is more than mere word recognition and the association of meaning with words. Reading involves evaluation of information, reflection, comparing views, appreciations, formation of attitudes, modification of purposes and behavior, and application of ideas gained from reading to the solution of problems In order to insure these values, the teacher makes liberal use of guided discussions; directs the pupils in establishing clearcut reading purposes, provides for the use of many learning aids; appraises and encourages the extension of pupil interests; and permits the children to apply ideas gained from reading to the solution of personal and social problems.

8. *Flash Cards.* A series of basal readers usually is accompanied by a set of flash cards containing words and phrases selected from the basic vocabulary. In some schools, the use of flash cards has been discontinued because "they are old-fashioned" or because "some authority advises against their use." This situation is unfortunate, because flash cards can be used as legitimate adjuncts to basal-reading materials.

After conducting an investigation of

the educational value of flash cards, Gates proposed two uses (38, p. 226):

> The flash-card drills should be used primarily for two purposes· to emphasize the need of comprehending several words in a single glance and to establish a "set" or habit of trying to take in phrases as wholes. The short exposure device should be helpful for these purposes To transfer the "set" or habit to ordinary reading is a task not *fully* accomplished by the flash-card drill alone.

In general, flash cards are used to improve rate and accuracy of word and phrase perception and to build stories in chart holders for beginners. When used in connection with a directed reading activity, the words and phrases selected should be those to be encountered immediately in a selection. Hence, they are especially valuable following the introductory reading in which specific word-recognition problems are noted. They also can be used in individual follow-up activities by teaching pupils to prepare their own flash cards on oak tag and pairing the pupils for drill to meet individual needs.

There are at least two pitfalls to be avoided in using flash cards. First, drill on words in isolation is not likely to improve *reading* ability. The writer has noted situations in which all nonreaders, slow readers, or beginners were given meaningless and extensive drills on a list of 220 sight words to "prepare" children for reading. Both research and common sense indicate the fallacy of this procedure. Flash-card content should be derived from individual pupil needs. Second, flash-card drill will not automatically increase word-recognition skills that contribute to fluent reading. Gates is right when he says (38, p. 225):

> Flash cards represent an unreal reading situation; the size of type, the distance, arrangement, form of presentation (that is, the act of "flashing" the card) are all unlike those found in ordinary reading.

To offset this "unreal" situation, the pupils should be guided in locating words

requiring attention in the first reading and in finding the words flashed by pursuing the context of the story. Flash cards are only one device used in reading instruction.

9 *Seatwork.* In some elementary-school situations, seatwork has been overemphasized as a means of keeping children busy while the teacher works with another group. There is no legitimate reason why *follow-up activities should keep children glued to their seats.* Master teachers have demonstrated for generations the fact that children can be taught to engage in independent and group activities without creating a bedlam. If special seatwork activities are assigned, the learner should *understand* the value of them.

To be educative, seatwork should satisfy the following criteria·

a. The pupils should understand the purpose of it; therefore the activity should be interesting and helpful.

b. The activity should meet a specific need and promote independence

c. The material should be prepared in terms of the *independent* reading level of the child (10).

d. The child should understand what is called for and the technique of responding.

e. The results achieved should be very carefully appraised with the help of the pupil.

10. *Dictionary.* Some of the pupils in the third grade and many of the pupils in the fourth grade can profit from learning to use a very elementary dictionary. Up *to this point, their experience in this* respect has been with pictured dictionaries and glossaries. A truly independent worker knows what helps may be obtained from a dictionary, how to locate information, and how to interpret and apply the information. The establishment of independent study habits is furthered by promoting confidence in the use of a dictionary.

Because a dictionary contains so many

helpful items of information, the uninitiated young child may be scared out by a first glance at the organization and hieroglyphics employed. Hence, each pupil must be gradually inducted into the full use of this source of language information. At the first-grade level, many children learn to make and use a pictured dictionary. Many children in the second grade know the letters of the alphabet, can use alphabetical arrangements according to the first letters of words, and have some elementary knowledge of syllabication. In third-grade classrooms, many children know the terms *short* and *long*, use the term *syllable* and have a basic understanding of the elementary principles of syllabication, and have had some contact with the breve and macron used to indicate pronunciation without respelling. All of these items plus the ability to use context clues for word-recognition purposes have prepared the child systematically for his first introduction to the dictionary.

Most fourth-grade pupils are prepared sufficiently well for a first introduction to some of the helps in a dictionary. At this level, the pupils are taught to alphabetize according to the second, and possibly the third, letters of words; to use the terms *vowel*, *consonant*, *synonym*, *antonym*, and *accent*; to interpret macrons and breves in key words; to interpret accent marks; to use guide words, key words, and respellings; and to select from multiple meanings. This is a large order, meriting careful consideration in follow-up activities.

Children who have acquired sufficient language skills to handle beginning fifth-grade books need to develop additional information and skills These include alphabetizing according to the fourth letters of words; use of the terms *diacritical mark*, *root*, *stem*, and *suffix*, and knowledge of derivatives, preferred spellings, and preferred pronunciations

At the sixth-grade level the pupils should have the alphabetical arrange-

ment of words in an elementary dictionary under complete control to facilitate location of items. In addition, they should know how to use the term prefix and how to interpret all of the diacritical marks. At this level, too, they should begin to interpret the abbreviations used to indicate parts of speech.

A systematic introduction of most pupils to the use of a dictionary is one of the important instructional jobs in the elementary school. However, secondary-school teachers must understand that this work is only initiated in the elementary school Learning how to use unabridged dictionaries and higher-level abridged dictionaries is a perennial job. Teaching the use of the dictionary requires the integration of all language skills. For example, parts of speech may be taught by some teachers during an English period, but that treatment is not sufficient· instruction of this type must be tied into spelling and reading to be effective.

11 *Storytelling.* One worth-while means of enhancing a directed reading activity is through storytelling. This may be done in preparation for the reading of a basal-reader selection, following the introductory reading, or as a follow-up on the directed reading activity. After reading an Indian legend, the teacher may set the stage by telling another. The truly creative teacher will encourage members of the group to make up legends or to retell other interesting legends. Legends, Bible stories, nonsense stories, folk tales, and the like are excellent sources to be worked in on the spot. Spontaneity should characterize these situations.

In a very fine bulletin of the Association for Childhood Education, Miss Phyllis Fenner gives us a cogent statement of "Why tell stories to children" (89, p. 17):

There are many reasons for storytelling, but the most important is that children love to hear stories They like to have stories read to them and it is true that some stories were meant to be read, but there is something a

little more personal about telling stories. One boy said to his teacher the storyteller, "I like her stories better'n yours. She's got hers in her head."

Storytelling by librarians, teachers, and pupils has a place at every age level in the elementary-school program. As a follow-up activity to a directed reading period, storytelling develops a feeling for the beauty of language, serves as a dramatic introduction to a good book, and gives tone to the classroom.

WORKBOOKS

Many follow-up activities center around workbooks designed to complement the textbook. So long as they are not used as mere *busywork*, they are valuable adjuncts to a program in which the basal-reader approach is used.

The workbook situation has been pointed up by Maycie K. Southall (21, p. 71):

What to do with the children not working under direct guidance of the teacher continues to be a perplexing problem for many teachers, especially those working in the ungraded schools and in crowded classrooms. Busywork, educative seatwork, and workbooks have each in turn admittedly been used by busy teachers as an aid to discipline as well as to learning. In view of the recency and rapidity with which the workbook movement has developed and the large number of city and state-wide adoptions, even in schools and areas where there is a dearth of instructional material, a critical examination and evaluation of the educational value of such material is most timely.

In general, well-prepared workbooks are used for both diagnostic and developmental purposes. Since the work requires individual responses, individual pupil needs may be analyzed in detail. For developmental purposes, the material is usually better prepared than the material slapped together by a hurried and overburdened teacher. Furthermore, higher standards of hygiene may be achieved by printing than by most of the other means used in the classroom.

Continued analysis and worth-while developmental activities should characterize the follow-up period.

Workbooks should be used to *care for individual needs*. In some instances, the child may receive more help through browsing, independent reading and research, and the like than from engaging in a given workbook activity. When workbooks are used, each page should be geared very closely to the textbook selection. The procedure of saving up workbook sheets to fill in a period on some future day in the week is without justification. Furthermore, workbooks should be ordered in terms of the reading levels of the pupils in the room. No one can justify ordering thirty similar third-grade workbooks for the thirty dissimilar third-grade pupils found in any classroom in the country. No teacher should have less than two or three groups for directed reading activities in her classroom; hence workbooks for at least two or three reading levels must be ordered.

Each workbook activity should be preceded by careful preparation. This preparation is made in a group situation. Pupils should be guided in finding the right page and in understanding the technique of responding. And above all, they should understand why the activity is important to them. Only through careful preparation can the group see the purpose of the activity and practice independent study habits.

Growth versus Busywork. Since 1924 workbooks have become one of the major vehicles of instruction. Evidence to this effect has been secured from the income records of publishers (44) and from a survey of school practices. Especially is this true of the language arts. The instruction, test, and practice sheets developed in the Winnetka schools probably represents the most extensive use of workbooks for the purpose of individualizing instruction. In fact, workbooks have been one of the chief means of developing this method.

It appears that the use of workbooks in spelling, reading, and composition is tending toward the unification or integration of instruction in the language arts. The overlap in types of activities as well as in the content in workbooks in each of the language arts is rapidly making mandatory a reappraisal of the curriculum in this respect.

Much has been written in the past on "busywork" and seatwork activities. In the absence of appropriate materials and techniques, the teacher was confronted with problems of keeping the rest of the class "busy and quiet" while she worked with one group. Although such practices have not yet passed from the American educational scene, the use of excuses of the past indict the teachers of today. For example, a substantial number of classrooms are the scenes for "busywork" use of workbooks, thereby defaulting the purposes for which they were intended. "Busywork" as a quieting or subduing activity has no place in the modern school.

In that masterpiece of scholarship, *American Reading Instruction*, Nila Banton Smith recorded her reactions regarding the use of workbooks which have a bearing on the general theme of this chapter (81, p 273)

Seat work materials for silent reading certainly have a definite place in the reading program. It is to be questioned, however, whether they should occupy so large a place in classrooms as they now do. They undoubtedly give practice in some types of silent reading and are a great convenience to the teacher who wishes to have at hand ready-made materials which she can pass out to keep one group occupied while she is working with the other group. Perhaps this second reason has too often been the cause of an over-abundant use of such material.

There is a strong objection to having primary children spend an undue amount of time sitting in their seats carrying out prescribed silent reading exercises. This type of work leaves little opportunity for the child to develop his own initiative and to express his creative impulses. When used extensively, it crowds out many more active and fruitful experiences which the little child should have.

Types of Workbooks. The development of workbook materials apparently has kept pace with current educational interests and problems. Picture-story lessons and pictured dictionaries were followed by workbooks prepared for the development of basic skills and abilities in reading. Consternation over pupil failures in the first grade and researches in the field of child development gave rise to the scientific study of factors in readiness for reading. The outcome was reading-readiness tests and materials. Somewhat startling findings regarding the character of the retarded reader population stimulated interest in diagnostic testing and remedial procedures which resulted in attempts to develop special remedial reading workbooks. Commercial workbook materials, undoubtedly, have contributed substantially to general teacher interest in these problems, probably more than professional books and magazine articles

Reading-readiness Books Recently, a number of reading-readiness books have been prepared to guide the development of readiness for reading activities. These followed immediately after the first surge of interest in reading-readiness tests, and the factors emphasized in some have closely paralleled those measured in tests

The first reading-readiness booklet was published in 1935 as a preprimer preparation for the primer. The author stated that "The booklet does not predigest the primer stories but it furnishes the background for understanding them" (52). Several reading-readiness books soon appeared on the market. The reading-readiness idea had taken root; specific materials and suggestions had been made available to implement the philosophy

The first reading-readiness booklets or workbooks were developed for use as preparatory activities for a given series of basal readers. Recently, independent

type reading-readiness books have been published. Most of these are consumable.

Many of the reading-readiness booklets have been designed to serve two purposes: First, to provide the teacher with a systematic program by means of which she may acquire an understanding of certain developmental needs of children who may or may not be generally ready for "book-type" reading activities. Second, to provide the teacher with certain core specifics for a program of systematic guidance in terms of individual strengths and weaknesses.

Since the development of reading readiness is not just a "textbook" or "workbook" job, it appears that the chief value of commercial reading-readiness books lies in the suggestions contained in the materials and in the teacher's manual. The teacher at once is afforded an informal means of detecting individual needs and is supplied with specific suggestions for the further analysis of individual needs and for developmental activities to meet those needs. Obviously, a differentiated reading-readiness program cannot be put within the covers of a pupil booklet and a teacher's guidebook. The development of the "whole child" with which educators are now concerned embraces activities beyond the confines of any one book that is likely to be prepared.

Examples of this type of booklet include:

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In many situations it may be expected that reading-readiness materials will be used in a manner which violates the intent of the author Misuse of these materials includes in-between-recitation busywork activities, limiting the reading-readiness program to workbook activities, use as self-teaching devices, requiring all pupils to participate in the same activities regardless of needs, and failure to make use of suggested standardized tests. Materials of this type do not solve automatically teacher problems in connection with a reading-readiness program, but they can be used as a stimulus to further teacher activity. The teacher is still the keystone of an educational program; self-teaching materials are not an actuality

Workbooks for Basal Reading Activities Recent series of basal readers are accompanied by preparatory or follow-up materials which are usually related to the content of the readers These materials are designated by a variety of titles, including seatwork materials, workbooks, work-pads, practice books, practice exercises, companion books, preparatory books, self-help exercises, and activity books. Workbooks usually are organized on the unit plan paralleling that of the basal reader. In addition, the vocabulary correlates with that of the basal reader, usually no new words being introduced.

In general, the chief purposes of workbooks include the development of basic skills and ability in silent reading required for informative type reading and continuous pupil appraisal. The developmental activities usually are designed to promote vocabulary control and growth in silent reading. Both diagnostic and general survey tests are included in most books.

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In general, the chief purposes of workbooks include the development of basic skills and ability in silent reading required for informative type reading and continuous pupil appraisal The developmental activities usually are designed to promote vocabulary control and growth in silent reading. Both diagnostic and general survey tests are included in most books.

THE TEACHER GUIDES THE FIRST, OR SILENT, READING.

Maude McBroom   Iowa State University

By and large, it will be found that a workbook written to accompany a given basal reader will be easier to administer than a workbook prepared to be used independently If, however, a workbook is found to be inferior, the teacher should not hesitate to select one which more nearly meets pupil needs The following are examples of this type of workbook.

My Work and Fun Book to go with *The Children's Own Readers* New York Ginn and Company, 1934

Workbook to be used with *Happy Road to Reading* Chicago Rand, McNally and Company, 1935

Think-and-Do Book for use with *Curriculum Foundation Series* Chicago Scott, Foresman and Company, 1936

My Own Book for *Happy Hour Readers* Richmond, Virginia Johnson Publishing Company, 1935.

My Practice Book to accompany *The Child Development Readers* Boston Houghton Mifflin Company, 1939 (revised)

Workbook for *The Friendly Hour* New York: American Book Company, 1936

Workbook for use with *Easy Growth in Reading* Philadelphia The John C Winston Company, 1937.

The Companion Book for *The Alice and Jerry Books* Evanston, Illinois. Row, Peterson and Company, 1936.

Practice-Pad to be used with *The Unit-Activity Reading Series* New York: Burdett Company, 1935.

Work and Test Book for *Joyful Readers: The New Webster Series* St. Louis: Webster Publishing Company, 1939.

Practice Book for Guidance in Reading Series. Chicago· Lyons and Carnahan Company, 1936.

Activity Book for *The Curriculum Readers.* Indianapolis· The Bobbs-Merrill Company, 1938

Reader Workbook for Childhood Readers. New York. Charles Scribner's Sons, 1932.

Preparatory Book for *The New Work-Play Books.* New York· The Macmillan Company, 1939.

Workbooks for Independent Reading Activities. An increasing number of workbooks is being developed to be used independently of a basal series of readers In some places, this type of workbook is used to bolster up a reading program in which the basal materials have been found inadequate. The following are examples of this type of workbook:

Barry, Linda E., Madden, Mabel, and Pratt, Marjorie. *Targets in Reading* (High school). St. Louis, Missouri: Webster Publishing Company, 1938.

Durrell, Donald D., Sullivan, Helen Blair, and McCarthy, Josephine. *Steps to Reading* (*Meeting New Friends* and *Friends of Ours*). Yonkers-on-Hudson, New York: World Book Company, 1942.

Gates, Arthur I., and Peardon, Celeste Comegys. *Practice Exercises in Reading*, Books III (Grades 2–4), IV (Grades 3–5), V (Grades 4–6), Types *A, B, C,* and *D*. New York: Bureau of Publications, Teachers College, Columbia University, 1925.

Hardy, Marjorie. *My Workbook in Phonics*, Part I (First Grade), Part II (Second Grade). Chicago: Wheeler Publishing Company, 1929.

Lewis, E. E., Roemer, Joseph, Matthews, W. L., and Woody, Clifford. *Adventures in Dictionary Land* (Elementary Grades) New York: American Book Company, 1932.

McCall, William A., and Crabbs, Lelah Mae. *Standard Test Lessons in Reading*, Books Two (Grades 2–4), Three (Grades 3–5), Four (Grades 4–6), Five (Grades 5–7). New York: Bureau of Publications, Teachers College, Columbia University, 1925.

Salisbury, Rachel. *Better Work Habits* (High school and college). Chicago: Scott, Foresman and Company, 1932.

Simpson, Robert G., and Gilmer, Ellen C. *Developmental Reading Exercises for Improving Reading Habits*, Books II and III. Book II (Grades 5–6), Book III (Grades 6, 8–9). Minneapolis: Educational Test Bureau, 1939.

Stone, Clarence R. *Eye and Ear Fun*, Books I, II, and III. Book I (Grades 1–2), Book II (Grades 2–3), Book III (Grades 3–4). St. Louis, Missouri: Webster Publishing Company, 1932.

Workbooks for Corrective or Remedial Activities. In addition to the workbooks accompanying basal readers, special materials have been prepared which are designed to provide remedial reading activities. Many of the independent type workbooks are recommended for use in remedial reading activities. The follow-

ing are examples of workbooks prepared especially for diagnostic and corrective activities:

Brueckner, Leo J., and Lewis, William Dodge. *Diagnostic Tests and Remedial Exercises in Reading* (Grades 3–4). Philadelphia: The John C. Winston Company, 1935.

Hegge, Thorleif G., Kirk, Samuel A., and Kirk, Winifred D. *Remedial Reading Drills*. Ann Arbor, Michigan: George Wahr, 1936.

Johnson, Eleanor M. *Diagnostic Reading Workbooks* (Grades kindergarten–grade 8). Columbus, Ohio: American Education Press, 1937.

Picture-Dictionaries. One of the forerunners of the practice-pad, or workbook, was the Courtis and Smith *Picture-Story Lessons*. Gates (39, pp 283–289) and Others have recommended both ready-made and pupil-constructed word-picture dictionaries for development of interest in and mastery of words.

The following are some of the picture-dictionaries published for use by primary children and by retarded readers:

Gates, Arthur I., and Huber, Miriam Blanton. *Dictionary* for use with *Peter and Peggy.* New York: The Macmillan Company, 1937.

Watters, Garnette, and Courtis, S. A. *Children's Picture Dictionary*. New York: Grosset and Dunlap, 1939.

Investigations of the Use of Workbooks. A questionnaire study on the use of reading workbooks was reported by a committee of the Association for Childhood Education (21). Ninety per cent of the supervisors and principals and eighty-six per cent of the teachers reported a desire to make "regular or occasional use" of reading workbooks. That workbooks are used widely is evident by the report that they are available in eighty-seven per cent of the situations reported upon by principals and supervisors, and in sixty-six per cent of the situations represented by the classroom teachers. Twenty-nine per cent of the classroom teachers reported the use of workbooks to keep the children either busy or quiet. In the

minds of the teachers the three most important specific values of reading workbooks were to "provide necessary review and to fix vocabulary," to "improve comprehension," and to "teach child to follow directions."

The chief objections to the use of reading workbooks reported by teachers were the cost, failure to provide for individual needs, and the amount of time required for supervision. No mention was made of reading-readiness books. This report is one of the first substantial challenges to those who complacently make indiscriminate use of workbooks.

Workbooks versus Pictured Dictionaries. An experimental appraisal of one type of commercial workbook material and one type of picture-dictionary was reported by Pierce and Quinn (73, pp. 600–606). Only eighteen pupils in the second semester of the first grade were used for each group. Although the results were somewhat inconclusive, the data indicated that the picture-dictionary tended to develop as much ability in word recognition as the workbook materials used.

The investigators described the advantages of the workbook materials as including. Makes pupil reading-conscious; pupils enjoy the game element in workbooks. Some of the disadvantages cited. Directions beyond reading ability of pupils, and too few picture clues to word meaning. The chief limitation of picture-dictionary materials was the difficulty of illustrating certain abstract words. Among the advantages listed were. Requires less teacher direction; promotes individual progress, and "provides training in habits of dependability and self-reliance."

Criticisms of the Use of Workbooks. The use of workbooks, which have come into wide use since about 1924, has tended to change the character of reading instruction. Although widely accepted as a boon to the overworked classroom teacher, the use of reading workbooks has not been unchallenged. Very little experimental evidence has been produced to substantiate the acceptance of this type of instructional material. Furthermore, there is very little evidence in the professional literature of attempts to evaluate workbooks in terms of current conceptions of education.

Some of the criticism leveled against the indiscriminate use of workbook materials are summarized as follows: (It should be noted that the way in which workbooks are used should receive as much critical evaluation as the workbooks themselves.)

1. Many workbooks are instructional devices, largely mechanical in nature. The importance attached to "learning-to-read" in the primary grades—regardless of varying capacities, or readinesses—to a degree has fostered the development of devices in reading, an overemphasis on the mechanics of reading, disproportionate attention to difficulties rather than to needs, and regimentation. Attempts to develop "self-explanatory" exercises have contributed further to the mechanization of workbooks. At no time should sound basic instruction be supplanted by mechanical exercises and drills.

Some workbooks are stereotyped and appear to be patterned after standardized tests Although this situation may have been the outcome of deliberate planning to minimize the amount of explanation required for pupil preparation, it does appear that monotonous repetition of little educative value is provided and that individual needs and interests are overlooked. The undesirable features of some workbooks include an excessive amount of cutting and pasting; emphasis on the mechanics rather than the meanings of words; practice on word, phrase, and sentence units rather than longer units; little variation in types of activities; art activities of questionable value; and insufficient attention to individual needs. To the writer's knowledge, no author yet has provided experimental evidence of the value of the specific activities included in a workbook. Exercises rather

than individual experiences are stressed.

2. Workbooks frequently are used as busywork and as a means of discipline. Crowded classrooms undoubtedly have afforded some basis for the teacher's excuse, "But I must keep them busy some way." Too often excessively large classes which make clerks and masters of discipline of many teachers have gone without challenge. And, too, some teachers report that they believe in differentiation of instruction, but that they have not mastered the necessary techniques. The development of learner self-direction is defaulted under these circumstances.

3. Workbooks have sometimes been used to bring about further regimentation of pupil activities thereby defaulting possible educative values. When every child in a given grade is provided with the same workbook, it is obvious that individual needs are not met. The wide range of reading abilities within a given "grade" precludes the possibility of giving every child the same prescription and of expecting maximum individual development in such a situation.

4. Workbooks have played a substantial role in certain plans for the individualization of instruction. To use materials on this basis requires, in a measure, subscription to the philosophy that the curriculum should be composed largely of subject matter to be learned, of universal activities for all children.

5. Too often teachers tend to lean on workbooks as *self-instructive devices* and thereby use them to compensate for their own inadequacies. To provide guidance in the development of comprehension, control over the mechanics and meanings of words, and the like, requires a grasp of techniques and a versatility which too few teachers possess. As a result, it is commonplace to resort to mechanical aids.

6. The indiscriminate use of workbooks has led *sometimes to disproportionate* budgetary allocations which have resulted in inadequate library support and very little curriculum enrichment.

7. Some workbooks appear to be constructed on the assumption that sheer repetition fixes learning. *If goal-seeking behavior is actuated by workbook activities, then it is probably highly artificial.* Harap (51, p. 168) ably criticized the *indiscriminate use of workbooks* which results in verbalism, stifling of pupil initiative in planning, and unmotivated, artificial, fixed modes of response.

8. The indiscriminate use of workbooks tends to overemphasize the mechanics of reading. Reading, in this case, becomes a subject to be studied rather than a basic process of thinking.

The need for intelligent use of workbooks is stated cogently by Worth McClure (82, p 223):

> The fetish of the device has also been upheld for worship by countless authors of "methods" and publishers of workbooks in both the field of instruction and that of administration. They imply that successful teachers or administrators are to be made simply by possession of a volume of trade secrets, or professional success is to be won as was the advancement of the comic-opera admiral who "polished up the handles so carefulee that he was made the ruler of the Queen's navee!" Of course, workbooks and devices have a place when their use is dictated by intelligent purpose. When they become, however, the means of blocking rather than stimulating professional thought, they are worse than useless.

It must be remembered that the average child goes to school in a situation that is far from ideal. Surveys by the writer and others reveal that few teachers have had a professional course in reading. Instructional materials and library facilities usually are found to be woefully inadequate. Children are being taught in a surprising number of schools by synthetic methods of phonics, by isolated word drills, and the like. When one considers the typical situation, therefore, it can readily be seen that there are children in every classroom who can profit by the use of selected, well-prepared workbook materials. The workbook issue is not one-sided.

Mimeographs and other duplicating devices have facilitated the preparation of teacher-fashioned materials. For many reasons this activity should be encouraged Every effort should be made, however, to place before children materials that meet hygienic and reasonable composition requirements. Over a period of time, a considerable quantity of worthwhile materials can be developed and filed for future use. At the same time caution should be exercised to see that these materials are used to meet significant individual needs

Values of Reading Workbooks That workbooks apparently have met a need either vaguely or definitely conceived by teachers, supervisors, and administrators is self-evident. In fact, a national committee of specialists in reading (91, pp. 374–375) endorsed workbooks as a means of systematically providing for individual adjustments, without listing limitations inherent in their use and without suggesting possible judicious uses Not all workbooks are to be condemned as obstacles in the progress of education. Much depends upon wise selection and intelligent use.

The following is a summary of some of the values which are generally believed to accrue from the use of workbooks:

1. Workbooks provide a systematic organization of instructional materials for largely self-directed learning activities Authors of these materials frequently mention the fact that commercial workbooks represent better organized material than that which could be developed by the average hurried teacher. Wisely used, workbooks may relieve the teacher of much drudgery connected with the selection or the preparation of needed materials Most modern workbooks embrace activities which are far superior to the improvised busywork and seatwork of the past.

2. Workbooks provide materials which can be used for the analysis of certain types of reading difficulties Undoubtedly, a resourceful teacher can detect possible causes of silent reading difficulties through a careful appraisal of performance on certain types of workbook units. The diagnostic value of workbook activities should not be overlooked.

3. Some workbooks provide for the systematic appraisal of certain types of pupil progress Devices for recording progress and stimulating interest have been incorporated in most recent workbooks A quick means of detecting reading difficulties can contribute substantially to the prevention of reading disabilities by making it possible to initiate immediately necessary corrective procedures. Correction of faulty concepts and faulty habits of reading is an essential part of a substantial first-teaching program It must be remembered that children are not perfect learners Workbooks may be used as an economical means of appraising progress.

4 To a degree, a differentiated program of instruction can be furthered by the careful use of workbook activities Many workbooks are printed on perforated sheets that can be torn from the book and used as the need arises Such materials, however, need not be the basis for an individualized program, but they can be used to advantage.

In connection with the discussion of workbooks in teachers' manuals, the following cautions are typical:

These procedures are to be adapted to individual needs (34, p 43)

Only the teacher can determine the amount of practice needed (55, p xviii)

Some children may need little or no practice, other children will need more (95, p xx)

5. With certain groups it is conceivable that workbooks may be used profitably to prepare for the successful participation in small group basal reading activities. Certainly every child in a classroom should not be put through the same "preparatory routine" Some workbooks have been developed for use as preparatory activities for basal reading activities and to be reused as follow-up.

6. For certain groups within the room, workbook activities may be used effectively as a follow-up on basal reading activities. Here, again, many children may profit more from extensive reading or from other types of school activities.

7. One of the claims frequently made for the use of workbooks is that the child is taught how to follow directions. It is important to evaluate how, or through what situations, a pupil is taught this basic but sometimes overemphasized skill. Teaching a child to follow the directions necessary to perform a science experiment may have much more educative value than drill in a somewhat isolated manner.

8. From a psychological point of view, the use of other language arts activities, *especially written composition*, should contribute to re-enforcement of other learnings. If the workbook activities are motivated by the learner's understanding of purposes, it appears reasonable to assume that the introduction of kinaesthetic (especially handwriting) as well as visual and auditory associations would justify certain types of workbook activities. Although the kinaesthetic approach can be greatly overemphasized, evidence from work with remedial reading cases tends to support the contention that the possible significance of this factor should not be overlooked.

Some Criteria for the Evaluation of Workbooks. The following criteria by no means should be considered final or all-inclusive. They are offered largely as suggestive of factors that should be considered in the evaluation of workbooks.

1. Meaning rather than the mechanics of reading should receive major consideration. The child becomes a slave to the system when workbook "exercises" become drills which are unrelated to meaningful content. Specific provision should be made for checking depth and accuracy of comprehension In the main, general language development should be stressed, with special attention to semantic sensitivity.

2. Activities should be emphasized which facilitate the normal development of goal-seeking behavior rather than drills and exercises to insure a given number of repetitions. Cut and dried directions can be no substitute for broad and well-motivated learner preparation for workbook activities. The materials should be well organized so as to capitalize on scientific findings regarding learning.

3. A wide and interesting variety of worth-while activities should be provided in order to recognize the various facets of the reading situation and to make possible adaptation to individual needs and interests

4. The workbook materials should be attractive Illustrations, content, and general format should enlist the interests of the pupils and meet hygienic requirements.

5. The materials should be of the informational type. Undoubtedly, the literary interests of children have been stunted or killed by the study of literature.

6. The vocabulary of the directions should be examined for possible comprehension difficulties.

7. Responses should be characterized by rich and varied associations and by inferential-type thinking rather than by an aided or unaided recall of facts.

8. If used to supplement a basal reader, the vocabulary of the workbook should provide re-enforcement to that of the reader. Meanings rather than word forms should merit major consideration. Provision should be made for well-distributed reviews.

9 Provision should be made for both self-appraisal and a quick means of teacher checking. In this connection, too, use should be made of objective appraisals and records of pupil progress. Ease of administration in order to conserve teacher time should be considered.

10 The teacher's manual should state clearly the purposes of the workbook, techniques for its use to meet individual needs, and worth-while substitute activities for pupils not requiring the ex-

periences provided. There should be ample provision for differentiated assignments

Suggestions for the Differentiated Use of Workbooks Workbooks developed for use with basal readers usually are designed to provide "extra practice in reading." The purpose has several implications

levels may be required. Third, only those units should be used which have a direct bearing on individual needs.

When workbook materials are reused, the activities should be motivated by new purposes. This requires teacher and pupil planning in a preliminary discussion. For example, the workbook sheets

Vera Briggs   REVIEWING MOVIE STRIPS, A FOLLOW-UP ACTIVITY   Salt Lake City, Utah

which should be mentioned In the first place, not all pupils require the extra practice offered through workbook activities. Second, the workbook activities should be correlated with those of the basal reader. This means that in a given grade workbooks for use at several grade

may be reused for preparing booklets, individual chart materials, picture-dictionaries, self-help devices, and the like The planning of the activity, the activity, and the product should have educative values.

In the main, workbook activities are

largely individual. A high standard of work must be maintained if efficient and fruitful study habits are to be developed. This calls for careful preparation so that the learner knows why, what, and how to participate successfully. In addition, he should acquire techniques for self-appraisal. Growth in independence should be one of the outcomes of individual activities.

Before the assignment of an activity, the teacher should have clearly in mind the specific purposes to be served by the activity. If the activity is designed to reveal specific difficulties, then the assignment should be made in that light. On the other hand, if the materials are to serve as a developmental unit, adequate pupil preparation will dictate a *different type of assignment*.

Teachers often complain that the workbook activities are too difficult because the pupils interrupt work with other groups by frequent questions. A careful check usually reveals either that the basal reader is too difficult or that the pupil wasn't sufficiently prepared for the activity in question. Many reading difficulties are created by placing children in situations where they have insufficient background. This can be forestalled, to a large degree, by a program in which adequate differentiation is provided.

And lastly, teachers should read carefully the guidebook, or teachers' manual, before attempting to use the accompanying instructional materials. Critically read, most recent guidebooks contain a wealth of specific information and suggestions not obtainable elsewhere. It will be found that the approaches differ, depending upon whether the basal reader contains literary or informative type material. At no time should the teacher become a slave to the guidebook. Although a series of basal readers should not dictate the nature of the entire reading program, a careful study of the teachers' manual *is exceedingly worth while*. Too often, these guidebooks remain undisturbed on the shelf.

Cautions in the Use of Workbooks. From the foregoing discussion it is clear that judgment must be exercised in the use of workbooks if genuine educational values are to be realized. At no time can the teacher be supplanted entirely by the use of prescribed materials. If the workbook activities are to contribute to learner development, then it is essential that the *pupil engage in those selected activities* which meet his individual needs and interests. In this way the material may be used to differentiate instruction. Teaching cannot be relegated to the assignment of exercises and routine checking of results.

The pupil should understand the specific values he will derive from the experiences. *A routine filling out of blanks* obviously can contribute little to the development of reading ability. Attitudes should be safeguarded as evidenced by the remark of the small boy, "I don't like reading because we have to write so much." Workbook materials should be selected which merit the time and effort of the learner. Good teaching calls for the appraisal and recording of pupil progress. Since this need has been recognized in adequate workbooks, the teacher should have little difficulty in administering this phase of a differential program. Every effort should be made to help the pupil develop effective *techniques of self-analysis.*

Rates of learning must be considered when using workbooks effectively. Pacing the progress of one group by that of another is as hazardous in the use of workbooks as in the use of any other materials. Maximum growth for all pupils *should be the chief concern of the teacher.*

The values of group endeavors and interchange of ideas are likely to be defaulted unless provision is made for group activities. This can be achieved through special discussions for the purposes of preparing a small group for intelligent and successful participation and of appraising, summarizing, and interpreting individual experiences.

Workbooks are not a "cure-all" for all pedagogical ills They should be selected in terms of the reading ability and the needs of the individuals in question. Purchasing thirty similar workbooks for a typical class of third-grade pupils is as ridiculous as requesting every child to wear gloves of the same size and weight for all occasions

Workbook Summary

1 Reading workbooks are used widely, but are not an essential counterpart of an educational program.

2. Although the chief use of reading workbooks is reported to be that of assisting the child in learning to read, there is considerable use of them for the purpose of keeping children "busy or quiet"

3 There is a trend toward the critical use of workbooks The desire to nurture individual differences is growing; techniques for differentiation, for the most part, are lacking

4 There is a trend toward extensive reading activities as a substitute for busy-work and for development of vocabulary control Breadth of reading experiences rather than drill is being given wide recognition in school programs.

5. One of the chief dangers from the indiscriminate use of workbooks is that of regimentation.

6 Workbooks provide a means of supplementing group instruction with individual instruction.

7. In general, it is probably safe to say that not enough attention has been given to workbooks, to their selection and use.

8 Self-teaching materials have not been developed to date; intelligent teacher guidance is essential to the successful use of workbooks

9 As teachers receive additional professional preparation and as they gain insight into the problems of child development, there will be less emphasis placed on workbooks as instructional devices in the "busy-work" sense

USE OF THE BLACKBOARD

To Center Group Attention. Successful teachers in modern schools make frequent use of a blackboard for developing experience records and in directing reading activities. In reading-readiness activities at all school levels, considerable emphasis is placed on oral-language development In directed reading activities, the child is taught to respond to visual symbols. Group responses to visual symbols are elicited through chart reading, interpretation of labels, and blackboard reading One of the chief values of using the blackboard for these purposes is in the centering of group attention on a specific problem In addition, pupils are taught group co-operation in planning and prosecuting units of work.

Many successful teachers use experience records as an approach to systematic instruction in reading. For this purpose, the blackboard plays a role of major importance The teacher serves as guide and secretary in organizing, taking the dictation of the story, and editing the experience record All of these activities are recorded on the blackboard before transferring the final revision to charts.

The blackboard is indispensable in organizing a unit of study. In discussing "What we already know," the teacher or a pupil serves as secretary and chairman in listing the fruits of class discussion Discussions of "What we want to know" are organized in like manner on the blackboard before making a permanent record Sources of help and individual pupil responsibilities are listed on the blackboard In many instances, individuals and groups may find it necessary to organize their contributions on the blackboard All of these organization skills in developing a unit of experience are brought out through discussion and presented on the blackboard.

In every group, there are children who have little idiosyncrasies in remembering words These are the ones who may acquire poor study habits and frequently

interrupt the teacher for help while she is working with another group. Good study habits can be fostered by taking steps to see that the child is adequately prepared for the workbook activity or some other project. This can be done during the preparation by helping the child set up on the blackboard key sentences containing troublesome words. Self-help aids of this type permit the child to scan the sentences for the word in question and to use the context as an aid to recognition.

Blackboard, an Indispensable Aid. In directed reading activities, the blackboard is almost indispensable. During the orientation, or preparatory, period, the teacher may use it to list pupil questions to be answered and to list key words —including, perhaps, some of the new vocabulary—brought out in the discussion. For example, if the pupils need to have attention called incidentally to *ing* words, they might peruse the illustrations to note the *swaying* trees, the *flying* papers, the children *going* to school, and so on. These key words may be written in a vertical list on the blackboard to stimulate discussion and to direct attention to the *ing* endings. During the guided silent reading, pupils should develop permanent habits of identifying words they cannot pronounce. *As these words* are asked for, the teacher may list them quickly on the blackboard and give needed help immediately. Following the first silent reading, it is usually necessary *to provide guidance in the development* of word-recognition skills and of comprehension. Here again, the blackboard is used to give instruction in word perception, in organizing story episodes, and so on. A blackboard is a handy device to prepare the pupils for the final follow-up activities.

Blackboard for Word Recognition. A note of caution should be made here regarding the use of the blackboard for word-recognition activities. Words should not be *written in the same place* on the blackboard or in the same order for succeeding activities to avoid memorization. The blackboard is used as a means of getting the children to apply word-recognition skills

The day has passed, however, when the blackboard covers all available wall space in the classroom for the purpose of providing regimented mass drill Much of the space previously given to blackboards is used for bulletin boards, built-in art easels, and the like

In summary, the blackboard is used for the following purposes:

1. Organization and development of experience records
2 Development of word-recognition skills
3. Development of organization abilities, including listing, outlining, and memorizing
4 Organizing standards of acceptable silent and oral reading
5 Listing self-help aids for independent follow-up activities
6. Listing sources of information to motivate and guide extensive reading
7. Listing "What we know" pertinent to the reading of a unit, or group of related stories
8. Listing and organizing "What we want to find out" from reading a unit, or group of related stories
9. Giving directions to pupils for guiding individual activities

Readiness for Basal Textbooks

First Books, Factors in Readiness. One of the goals of reading instruction is the development of a keen interest in and genuine feeling for the significance of reading. This goal cannot be achieved *if a child is forced into the reading of* books before he has acquired the prerequisites for reading. Children vary considerably in the ages at which they are ready for "book" reading, hence not all of them are ready to read at a given chronological age. Premature in-

struction is costly because it fosters withdrawal attitudes, sterilizes interests, and warps personality.

In discussing readiness for basal textbook instruction, one must bear in mind the type of material included in the basal reader and the literary quality of the material Some basal readers lean heavily in the direction of literature while others emphasize social-studies content The type of content dictates to a degree the prerequisites for reading as far as background of experience and concepts are concerned However, in some preprimers, mechanical repetitions have been overemphasized to a point at which the verbal context is sterile of interest or concepts By actual test, the content of a few basal preprimers has been appraised by both preschool and primary-school children and found to be almost meaningless. Some of these uninteresting and mechanical preprimers have been bolstered by unusually fine illustrations. Fortunately, the verbal context of some preprimers makes sense to children. Where literary quality has been sacrificed in order to achieve some arbitrary standards regarding mechanical repetitions of words, it is anybody's guess as to how to determine readiness for "reading" the material In summary, the type of content and the quality of writing in the first books are factors to be weighed carefully in deciding when a child is ready for "book" reading.

Fundamental Bases for Systematic Instruction A child is not ready for "book" reading until he has acquired a feeling for the significance of visual symbols. He should be aware of the reading functions, of the fact that pen scratches and the printed marks on the page stand for things within his experiences, of the pleasure to be derived from story books, of the information to be obtained from expositional selections, and so on. From previous contacts with experience records, or individual and group-dictated compositions, the pupils should have acquired certain basic notions of reading,

as, for example, left-to-right progression. Buttressing all of these aspects of reading readiness, of course, are oral language facility, background of experience, mental maturity, social and emotional adjustment, and other factors which may be appraised informally by a competent teacher or by means of standardized tests No matter how much planning is put into the directed reading activities, they are fruitful only when the child is ready for systematic instruction of this kind.

Length of Directed Reading Activity Periods

A directed reading activity is usually done on an *intensive* reading basis. In most directed reading activities, the pupil will meet with three or more "new" words Hence, a directed reading activity is usually done in a short period in order to maintain interest at a high level and to avoid fatigue. To meet this situation, authors of basal readers usually prepare short selections or longer selections that can be divided into short episodes. On the grand average, approximately twenty minutes is required for a directed reading activity in the primary grades and about thirty minutes in the intermediate grades. However, a directed reading activity should not be terminated at the tick of a clock. Each period should be concluded by some type of summary which leaves every pupil in the group with a deep feeling of satisfaction.

The time required for a fast-moving, well-motivated, and satisfactory directed reading activity depends to no small degree upon careful planning by the teacher No part of the period should be allowed to drag The teacher should be thoroughly familiar with the entire group of stories as well as with the selection in question in order to tie together pupil experiences and to know where there are appropriate stopping places in the story.

There are several considerations in putting punch into the directed reading period. First, the teacher should be thoroughly prepared. This preparation includes an intimate knowledge of the selection, a professional understanding of the suggestions in the manual, and an evaluation of each pupil's needs. Second, the orientation, or approach, to a selection should be brief and to the point. As a result, the pupils should be keyed for the introductory reading. Third, help should be given during the first silent reading at once so the pupil can continue without interruption with the survey reading. Fourth, following the first reading, help should be given on word recognition and comprehension in terms of the immediate needs of the group. Too much individual help at this point may cause the loss of group interest and spirit. Fifth, the rereading should be well motivated and to the point. Sixth, all activities with the textbook should demand the attention of the group. *Every pupil should participate frequently.* Seventh, individual needs should be catered to in the follow-up activities. When the children are properly grouped and prepared and when the teacher has planned effectively, a directed reading period can be snappy and profitable.

Basic Considerations

The degree to which the pupils develop basic skills, abilities, and attitudes from the use of basal textbooks depends largely upon the competency of the teacher. When basic principles of learning are violated by the teacher, pupil progress may be retarded. In some instances, the pupil may be frustrated in his earnest attempts to learn. For this reason, some of the basic principles and assumptions pertinent to the effective use of basal textbooks are summarized here.

Begin with the Learner. Before initiating instruction, the teacher's first duty is to ascertain the highest reading level at which each pupil can do independent

reading and the highest reading level at which each pupil can profit from systematic instruction. By being well informed regarding independent reading levels in the class, the teacher can buttress the intensive instruction in basal readers with guided extensive reading. After obtaining accurate information regarding instructional reading level, the teacher is in a position to challenge all pupils with appropriate materials. Fortunately, this type of information may be obtained by the use of an informal reading inventory (10).

1. *Determine Instructional Levels of Pupils.* In directed reading activities where basal readers are used, the teacher is primarily concerned with the problem of providing guidance at the instructional level. This level may be described as follows: Accurate pronunciation of ninety-five per cent of the running words; freedom from induced tensions, finger pointing, and head movement; absence of any form of vocalization in silent reading; *rhythmical oral reading in a conversational tone; and accurate interpretation of punctuation and ability to anticipate meaning.* If a child is to profit most from directed reading activities, he should be given challenging materials to read. This means that they should not be so "easy" that the new language learnings are not possible. Equally important, the material should not present so many new facts and language skills that the child is frustrated. It is clear, then, that the teacher must be skilled in guiding each child at his own instructional level.

2. *Group Pupils Carefully.* If this principle of "beginning where the learner is" is to be observed in the classroom, then the teacher must be aware of the varied interests and wide differences in the reading levels of a class. For example, at the end of the first year the pupils may be expected to vary in reading abilities from zero to high third-grade level; at the beginning of the fifth grade from pre-primer level to substantial high-school-

J. M. Payne   WORKBOOKS ARE HELPFUL.   Columbia, S.C.

level reading ability; and so on. With each succeeding grade level, the range of abilities is increased

In order to implement the principle of "beginning where the learner is" in a classroom situation where basal readers are used, the teacher must resort to some administrative device which will make possible practical recognition of individual differences One means of differentiating instruction is that of grouping the pupils within the classroom

3. *Teacher, Be Ready* One of the most potent factors in reading readiness is that of teacher readiness, or preparation. To be ready to direct intensive reading activities the teacher must *know her children* and the *appropriateness of available materials.* This requires a continuous appraisal of pupil interests and needs and a perpetual inventory of instructional materials

Focal Points in the Directed Reading Period

The teacher can well afford to appraise her instructional program of directed reading activities by thinking over her responses to the following questions:

Reading Readiness. Are all the children in the primary grades ready for systematic instruction in reading? Has a specific program of legitimate activities been developed to prepare the pupils for reading?

Attitudes. Is the learner caused to anticipate and to exhibit a curiosity for the content of books? Does the learner have an attitude of approach or of withdrawal? Is literature approached with a study attitude?

Materials. Do the instructional materials challenge each member of the group? In other words, is the reading material too easy or too difficult?

Individual Needs Is the instruction differentiated in terms of pupil needs? Stated another way: Are the pupils grouped and instructed in terms of specific strengths and weaknesses? Does the teacher begin with the learner's level of achievement? Is the thinking of the teacher circumscribed by a grade concept of children?

Preparation Are the pupils oriented or prepared for the story or the unit which

is to be developed? Are pupil interests and backgrounds of information pointed toward the theme of the new unit so that experiences will be examined and deepened? Are the "new" reading words a part of each pupil's speaking and listening vocabularies?

Motivation. Do the pupils have a general motive or purpose for reading the unit of material? Do the pupils have a "mind set" which will lead them to anticipate meaning?

Purpose Are the pupils reading to learn? Is the learner taught to read with a purpose or is he just given an assignment to prepare for the teacher? Is the learner encouraged to develop versatility in varying his rate and abilities used with the purpose of reading?

Silent Before Oral Are the pupils acquiring study and silent-reading habits during the first reading? Are the pupils taught to identify word-recognition and comprehension difficulties during the introductory reading?

Vocabulary Development. Following the first reading, are vocabulary difficulties, word-recognition weaknesses, and comprehension inadequacies cared for? Does the teacher provide for systematic vocabulary development at all grade levels?

Rereading Are rereading activities well motivated?

Follow-up. Are *individual* needs recognized in the follow-up activities? Are the pupils adequately prepared for the follow-up activity so that independent study habits are fostered?

Extending Experiences Do classroom situations provide opportunities for *learning* or *experiencing* rather than for *memorization?* Are teacher monologues or class-recite-to-teacher situations subordinated to sharing of experiences by the teacher and the pupils? Has the extreme of *teacher* or pupil dictation taken root in the classroom or is the teacher the *director* of individual learning activities?

Concept of Development. Are all children expected to progress at the same rate? Is emotional as well as physical and in-

tellectual development recognized in the classroom? When covering a given unit of work are individual needs *recognized?* Is the program calendar-, teacher-, or pupil-dictated?

Vertical Programs. Is systematic reading instruction provided only in the primary- or elementary-school grades? Do all teachers in both the elementary and secondary schools assume the responsibility for the development of desirable reading and study habits? Does the teacher expect the learner to practice reading skills in isolation or in situations where they will be used?

Balanced Program Is there evidence of balanced instruction in both *silent-* and *oral-*reading skills, information, and attitudes at all grade levels? Are efficient reading habits developed by providing specific guidance for each type of reading?

Systematic Instruction Is there confusion between formal or informal teaching and systematic instruction differentiated in terms of learner needs? Do the teachers in content areas depend upon the English teacher for the development of specific reading and study habits in their fields?

Appraisal of Learning Is there evidence of continuous appraisal of pupils' growth? Are the testing techniques varied to provide both appraisal of and practice on different abilities?

Limitations and Misuses of Basal Readers

Variety of Criticisms. Professional literature abounds with criticisms and statements of limitations of basal-reading materials. There are criticisms of content, of the stultifying effect upon education of their use, and of the extensive paraphernalia which sometimes makes teachers mere masters of devices. More and more these critical statements are being accompanied by descriptions of programs developed on a radical departure of philosophy. There has been a reaction against the regimented use of basal-

reading materials. Many of these criticisms are valid for other school practices.

This situation has been described cogently by Boney (25, p. 134):

Perhaps the most significant argument against the traditional program is that similar books cannot be used in dissimilar reading cases

That basal readers are not essential to systematic instruction for the individual is borne out by the prediction of Dr Nila Banton Smith (81, pp 266–267):

The great majority of public schools undoubtedly are not yet ready to dispense with a basal reader. The techniques of teaching reading through functional activities must undergo further development and refinement, new materials must be prepared, administrative difficulties must be overcome, and teachers must be better trained. In the meantime, many schools have gone far enough in introducing this type of reading instruction to lend assurance to the conviction that the basic set of readers eventually will disappear. It may continue to wield its power for fifteen years or for fifty years, but in time it will march silently out of the classroom and be relegated to dusty attics along with its progenitor, the hornbook.

About 1840, the idea of graded schools was developed and as a result the parents were educated to believe that grading of pupils was a solution to one of the problems of mass education Since there is a belief that all men are born free and equal, mentally as well as politically, and since it is only recently that attention has been given to higher standards of teacher preparation, a cold, mechanical, formal, rigid type of instruction has been offered to overcrowded classrooms of regimented children Mechanically graded subject matter has held sway over the needs and interests of children, who, if allowed, might have been responsive, enthusiastic, and even creative. This "grade" concept of children has been perpetuated by such phrases as "a third-grade teacher," a "fourth-grade reader," "The vocabulary of this book has been checked against the so-and-so's first five hundred words," "The first reader is to be used during the second semester," and "Begin phonics in the eighteenth week." The antidote has been another phrase, "remedial reading," the originator forgetting that remedial-reading procedures are based largely on first-teaching techniques. And so now the teacher is faced with the problem of saving children from standardization; for the world pays a premium for deviations rather than averages.

The following discussion of basal readers has as much bearing on the misuse of basal readers as it does on the general limitations of such materials.

RIGID AND PRESCRIPTIVE INSTRUCTION

A Third-grade Teacher? Once upon a time there was a third-grade teacher who was proud of the fact that she knew third-grade work and little about the nature of the experiences which came before or after. Now this teacher was immensely proud to be a specialist—she also might have been elated to be one of the three blind men who so surely described the elephant. Having some doubt in her mind regarding certain children in her room, she called in the researchers. By using a graded series of readers, these scientists found some children who could read with understanding nothing above a preprimer, the other pupils ranging from first- to average sixth-grade ability

When the evidence was placed before this teacher, she irately exclaimed to the principal, "See, I knew that Miss So-and-So, the second-grade teacher, was sending me some children who were not ready for my third-grade work." During the ensuing conference, it was explained that she had a somewhat typical third grade, composed of children who varied above as well as below the ability of the average third-grade child.

But the conversation did not end here, for the teacher was not ready to break faith with the Ancient Order of Regimenters and Standardizers in which organization she held a high office. After

some explanation, she understood that since she only knew how to teach one third of the pupils perhaps she should return eight hundred of her twelve-hundred-dollar salary to the school and that she should pay also an additional eight hundred dollars for confusing the lower one third of the class with third-grade materials, and for failing to challenge the upper third with materials at their level. It took no specialist in mathematics to prove to this able teacher that she really owed the community four hundred dollars per year for the privilege of teaching in the school!

Importance of Way Materials Are Used. One of the chief misuses of any type of basic material—whether it be arithmetic, history, geography, or literature—is that too frequently all children are treated alike. Meanwhile, the inquiring mind of the young learner is halted and frustrated because equal learning opportunities are not provided in the classroom through the differentiation of instruction. Although the manuals accompanying basic materials contain repeated statements concerning the grouping within the classroom for daily directed reading activities, and other procedures are outlined for guiding pupils into the reading of challenging materials, it appears that many of these suggestions have gone by default. As a result, children in a typical second grade are all required to read from second-grade materials regardless of whether or not they have preprimer or sixth-grade reading ability. Many basal reading activities, therefore, are resolved into a laborious and tedious translation of symbols. Here, again, it is not a question of the materials so much as it is *how* the materials are used.

Basal readers can fit well into the thinking of those who believe in a fixed curriculum, in reading as a subject to be studied or a learning-to-read approach, and in regimented class instruction. That these materials need not to be used in this manner is obvious.

In an effort to modernize reading materials, some authors have attempted to develop the content of basal readers around units, or centers of interest. Although valuable in that reading for reading's sake is de-emphasized, this has carried readers into the school program by further prescription. All efforts of this type indicate weanings away from the traditional learning-to-read program.

UNFORTUNATE ATTITUDES

Importance in Diagnosis and Correction. Because the typical classroom is poverty-stricken for suitable supplementary and independent reading materials, there is a tendency to use literary-type materials for informative or work-type purposes. As a result of this procedure, children analyze literature, approach literature with a study attitude, and memorize rather than experience literature. Hence, the appraisal of learning attitudes is a first step in teaching.

Change-of-learner attitude appears to be one of the first steps in remedial reading. Most investigations of retardation have brought to light deep-seated emotional complexes and inadequate concepts of the reading process. Reading fear and tenseness, an attitude of withdrawal or of rebellion, timidity, a rationalized dislike for school activities requiring reading, self-consciousness, compensation by unusual achievement in other school activities, and other emotional aberrations have been reduced simultaneously when the child has learned to read for meaning. The attitudes of parents, child, and teacher usually must be considered in the development of a wholesome emotional situation in which gaps are bridged and learning is redirected so that practice on errors is avoided. Although inadequate emotional responses are quite generally believed to be symptoms rather than causes of retardation in reading, there is the implication that such factors should be weighed in the diagnosis and the correction of the difficulty.

Reading Not an End in Itself. The use of
basic-reading materials tends to create
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Too often reading becomes an end in
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John Dewey's criticism in 1898 of the
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sarily inappropriate today (31, p 322)

It is quite true that all better teachers now
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But, under present conditions, this profession
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graph from the report of the Committee of
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enough the reason why, though, as it seems
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inference which should be drawn from the
facts set forth

"The first three years' work of the child
is occupied mainly with the mastery of the
printed and written forms of the words of his
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The material of the reading-lesson is thus
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of expression, which, fatal to reading as an
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*Erroneous Conception of First-Grade Read-
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Clarence R Stone makes the state-
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Those who emphasize the postpone-
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might well heed the advice given by
G Stanley Hall in 1887 (53, p 14):

There appears to come to many children
a period, lasting perhaps many months, be-
tween the ages of five and eight, when both
interest and facility in learning to read cul-

minate; and if this period passes unutilized they learn it with greater difficulty and at a certain disadvantage.

In 1929, a committee of the Department of Superintendence endorsed this statement (3, p. 19):

> It is an impressive fact in the history of schools that almost every theoretical reformer has attempted to exclude reading, and writing, and number from the first grade. In our times, G. Stanley Hall and John Dewey attacked these social arts as inappropriate for the first grade. What they *failed* to recognize was that the social interests of pupils and their willingness to accept the arbitrary associations necessary in learning to read dictate the introduction of the social arts as the most appropriate materials for training in the first grade.

It should perhaps be pointed out that the nature of the pupils does not determine the content of instruction in the sense of supplying the materials of instruction. Society has prepared an environment into which the young child must be initiated. The English language is here; there are books to be read and industrial and social institutions to be mastered. Out of the environment which society supplies, selection must be made of those items which appeal to pupils of the temperament and interests of first-graders. The content of instruction of the first grade is supplied by society, but it must be selected and arranged in such a way as to fit the first-graders' particular level of maturity. It is a mistake sometimes made in current educational discussions to attempt to draw the contents of instruction out of the experience of the pupil. It is equally a mistake to attempt to impose on the first-grader training unsuited to his stage of development.

The very fact that the market has been flooded with books designated as reading materials for a first-grade program has tended to perpetuate the obviously erroneous idea that all children "learn to read" in the first grade. Notwithstanding evidence that some authors of teachers' manuals have emphasized the need for differentiated instruction, the procession of first-grade failures "caused by inability to read" has *continued*. Recent emphasis on reading-readiness activities

in basal-reading systems undoubtedly will tend to counteract, in a small way, impressions dictating present practices.

FALSE CONCEPTS OF SYSTEMATIC LEARNING

By and large, basal instructional materials have been developed for group- or class-learning situations. Materials prepared on this basis have been graded in terms of altogether too meager data for the purpose of presentation in a sequence *which is believed by the authors to be systematic*. The fact that a book is labeled grade four and that a group of children are designated as fourth-graders *has contributed to a false concept of systematic instruction*. That the authors have not intended their materials to be used in an undifferentiated manner does *not correct this situation*. Basal-reading materials do not necessarily produce systematic learning; much depends on *how* they are used.

Boney (26, p. 184) contrasts practice that is systematic in terms of learner needs with the mechanical grade placement of subject matter:

> The introduction of reading skills has been changed considerably by the very complex reading environment in which the child lives. The thought that a number of copies of a single title are needed to introduce and teach such skills as the use of the index, use of the dictionary, the gathering of information against a problem, is quite contrary to what is actually happening. One child with some aid from the teacher, taught herself and six others to use the dictionary a year and a half before the school traditionally introduced this book. When this point was reached by this group the needed instruction was not introductory, but rather helping various individuals in becoming more proficient in alphabetizing, using the guide words, et cetera. The idea that the program will be so systematized that these skills will not be introduced to anyone until a stated time to insure adequate habits, belongs to a very insipid program. One group became quite familiar with the index to an encyclopedia which they brought frequently from their homes and the library for the teacher to read several months before

READING REGARDED AS A SUBJECT RATHER THAN A TOOL

Reading Not an End in Itself. The use of basic-reading materials tends to create a situation where reading is taught only at a so-called reading period (the directed or developmental reading period). Since reading is not a subject but instead is a process of thinking, reasoning, or experiencing, this is obviously a misinterpretation because development in reading power should take place whenever content subjects are contacted

Too often reading becomes an end in itself It is treated as a subject to be studied in isolation from situations in which the processes should be caused to function As a result, functional reading in other school activities is not capitalized upon and other teachers in the school system tend to lean upon the "reading" teacher to assist the learner in the development of serviceable reading habits

John Dewey's criticism in 1898 of the content of beginning readers is not necessarily inappropriate today (31, p 322):

It is quite true that all better teachers now claim that the formal act of reading should be made subordinate to the sense of what is read—that the child has first to grasp the idea, and then to express his mental realization But, under present conditions, this profession cannot be carried out The following paragraph from the report of the Committee of Fifteen on elementary education states clearly enough the reason why, though, as it seems to me, without any consciousness of the real inference which should be drawn from the facts set forth

"The first three years' work of the child is occupied mainly with the mastery of the printed and written forms of the words of his colloquial vocabulary—words that he is already familiar enough with as sounds addressed to the ear He has to become familiar with the new forms addressed to the eye, and it would be an unwise method to require him to learn many new words at the same time that he is learning to recognize his old words in their new shape But as soon as he has acquired (before three years) some facility in reading what is printed in the colloquial

style, he may go on to selections from standard authors "

The material of the reading-lesson is thus found wholly in the region of familiar words and ideas It is out of the question for the child to find anything in the ideas themselves to arouse and hold attention. His mind is fixed upon the mere recognition and utterance of the forms Thus begins that fatal divorce between the substance and the form of expression, which, fatal to reading as an art, reduces it to a mechanical action. The utter triviality of the contents of our school "Primers" and "First Readers" shows the inevitable outcome of forcing the mastery of external language-forms upon the child at a premature period. Take up the first half-dozen or dozen such books you meet with, and ask yourself how much there is in the ideas presented worthy of respect from any intelligent child of six years.

Erroneous Conception of First-Grade Reading Controversies regarding the initiation of first-grade entrants into reading activities are still being waged. One group states directly or implies that, under certain conditions, all first-grade entrants can be taught to read. Another group contends that since reading is a thinking process which requires a certain degree of mental maturity for successful participation, a substantial percentage of six-year-olds should not be initiated into typical beginning activities They also point out the many other needs and interests of children at that age. There is little doubt that reading as a primary-school activity has been greatly overemphasized

Clarence R Stone makes the statement that there should be no nonreaders at the end of the first grade "if methods and materials are properly adapted to the varying requirements of children" (84, pp 427–428)

Those who emphasize the postponement of reading instruction for all pupils might well heed the advice given by G Stanley Hall in 1887 (53, p 14):

There appears to come to many children a period, lasting perhaps many months, between the ages of five and eight, when both interest and facility in learning to read cul-

Then the supplementary books should be chosen purely with an eye to throwing light on other subjects studied, or for their literary value, and pleasure in reading. Mention has been made elsewhere of the value of school libraries as an aid to the reading habit. Here the Supplementary Reader loses its title, and advances to the grade of a "real book." Now the cultivation of the reading habit and the love of books is an immediate aim, and the book ceases to serve as a test merely. It is a means to an end, an instrument by whose use new knowledge can be gained or the pleasure of life enhanced. Therefore it is wise to spend carefully the money devoted to books, buying few of a kind, and many kinds now. For reference, for individual reading, for reading to the class, this collection of books is invaluable. The skillful teacher will plan many exercises which will reach far beyond the immediate lessons in their beneficent results.

INADEQUACY OF A SINGLE SERIES

Need for Complementary Materials. Too often individual variations in rates of learning are defaulted by the regimented use of basal readers. No two pupils in the same school grade present identical learning curves. Authors of basal readers have attempted to recognize variations in aptitude and learning rates by providing complementary materials correlated with those which heretofore have been considered to be basic. This break with the traditional single-copy series of textbooks is another landmark on the road away from a reading program based on a single series of readers.

An extreme reaction to the undifferentiated use of instructional materials has been recorded by Boney (25, pp. 134-135):

Perhaps the most significant argument against the traditional program is that similar books cannot be used in dissimilar reading cases. A number of studies have been made during the past decade to show the wide range in reading abilities within a group. Remedial work is dependent upon securing appropriate materials. This point is well illustrated in what is considered a typical answer given the writer after a check upon the prog-

ress of the extensive reading program in a number of schools: "Our standardized test scores are equal to or above the attainments made when we used basal readers. The interest in reading is higher as determined by the voluntary reading. The children are able to ferret information from varied sources against a problem better. Indeed, there is much remedial work to do, but our research points to the fact that it is highly individualistic. One example is a fifth-grade child who is doing very excellent oral reading but is on the second-grade level in comprehension. She is sitting next to a child who comprehends excellently, but is very poor in reading orally. Such individual needs cannot be met through the use of a single text even with a small group of children."

MISPLACED CONFIDENCE IN REPETITION

Significance of Activity Necessary. Other things being equal, practice makes perfect that which is practiced. This saying is subject to many misinterpretations. Undoubtedly, one does learn to read through participation in many and varied reading activities, but repetition without insight into the significance of the activity has proved to be a feeble substitute for real learning. Experience must have direction to be significant in learning. Thorndike (93, p. 14) has found that "repetition of a situation in and of itself has no selective power."

Commins points out that repetition is not just a "stamping-in process" (28, p. 342):

Learning, as we know, may occur in the absence of repetition, which cannot then be essential. In those instances, such as the development of a skill, where practice seems necessary, there is still the theoretical problem of explaining its effect. It is now rather generally accepted among comparative psychologists that learning cannot be explained by the "law of exercise." This principle stated, in effect, that frequent exercise of a certain response max of itself account for its appearance in the learned act.

Wheeler and Perkins have stated their views on repetition in reading as follows (97, pp. 457-458):

many of them had made great progress in reading To say that the introduction of these skills is fortuitous is to argue that the whole program is without plan, which is not the case Children's needs or children's ability to understand does shift the grade placement, but such should not confuse those in authority on what has taken place or what will follow

NARROW, FIXED READING PROGRAMS

Need for Wide Reading Too often the set of basal readers becomes the reading program—narrow in interest, stereotyped as to procedure, and analytical in character regardless of the type of content Intensive reading activities have been used almost to the exclusion of the extensive type and an attempt has been made to develop adequate and versatile reading habits through the use of the short units in a basal reader.

A belief in the inadequacy of a single set of readers is stated by Edward L. Thorndike (92, p. 229)

The facts presented so far indicate that unless some genius invents systematic exercises which will give fluent mastery of the mechanics of reading, extend word knowledge,

give familiarity with the common constructions and idioms, and teach pupils to handle large units (so far as their native ability permits), the schools must rely on a large supply of supplementary reading interesting in content and easily understood. Unless it is interesting the pupils will not read widely and may acquire a distaste for reading which may be more harmful than lack of reading.

The need for wide reading and for the wise selection of books to meet pupil needs and interests was recognized in 1899 by Sarah Louise Arnold (2, pp. 205-208).

The supplementary book is intended to afford variety in practice for the young readers, and to prevent the memorizing process, with its hindrance to reading. Its use depends upon circumstances It should sometimes be used as is the "regular reader"; studied, read, and re-read—that is, if it is worth re-reading It may be given to the pupils for silent reading only, or for individual reading when other work is done. Selected lessons from the supplementary reading may alternate with those of the more familiar book, or the books may be changed from week to week

READING FOR INFORMATION

Reading Clinic Laboratory School   *Pennsylvania State College*

No hard and fast rules can be established for a directed or developmental reading period; instead, certain basic principles should be observed. Variations in procedures make life more interesting for both the teacher and her pupils. If children are being sent to school in order to be better prepared to accept the responsibilities of citizenship and to enjoy better living, then this aim should dominate in the classroom.

The days are rapidly passing when one can witness a situation where forty children are *told to take from their desks* their basal primers and *without* preliminary preparation open the book to page seventy and take turns reading orally, ending *with* the teacher's instruction, "Get your arithmetic books ready." Likewise, fewer children are being kept "busy" by the teacher's caustic remark, "If you've read through your lesson only once, read it again!" Many things have been done in the name of education.

This discussion of directed reading activities is sketched *in the following statements.* It will be noted that these statements follow the outline of the questions presented at the beginning of this discussion.

I. The major steps, or sequence of events, in a directed reading activity include (1) developing readiness, (2) guiding the survey, or silent, reading, (3) developing word-recognition skills and comprehension, (4) guiding the rereading—silent or oral, and (5) following up the "book" reading

A. Teachers' manuals usually are organized around the above-mentioned sequence.

B. Teachers' manuals should be used as guides rather than as prescriptions, *or recipes.*

II. Several basic principles and assumptions may be used to guide the teacher:

A. Begin where the learner is. This is usually done by grouping within the classroom.

B. Systematically prepare the pupils for the reading of each selection by insuring an adequate background of experience, by developing working concepts, and by stimulating interest and identifying a general motive for reading.

C. Silent reading should always precede oral reading.

D. Develop word-recognition skills and comprehension and immediately following the introductory reading.

E. Rereading—either silent or oral, depending upon the needs of the pupils, the type of material, and the situation—should be done for purposes *different* from those used to guide the first reading.

F. Follow-up activities—group or individual—complement the book reading and are used to extend interest and abilities

III. Individual needs usually are recognized by providing silent reading before oral reading, *by assisting the child immediately with problems during the* introductory reading, by giving help on universal problems of the group immediately following the survey reading, by clearing up additional problems during the rereading, and by clean-cut activities in the follow-up to clinch learning.

IV. *Each directed reading activity in the* elementary school usually requires approximately twenty minutes.

V. When a new book is presented to a group, the children should be given an informal but systematic introduction to it. This includes stimulating interest in the content, pointing out the organization of the content, and demonstrating the proper care of a book.

VI. New vocabulary is introduced orally *in the discussion used to orient, or prepare,* the pupils for the introductory reading.

A. When it is necessary to precede the first reading with vocabulary drill, steps should be taken to regroup the pupils.

B Help on universal *difficulties of the* group should be given immediately following the introductory reading.

C. Individual needs are given ad-

Reading must follow the laws of expanding and differentiating wholes The ability to recognize a word, no matter where, depends on a meaning derived from some *larger* whole Then, seeing the word in any situation, and recognizing it, is a *transposition from one situation to another within this larger whole* This means, in reading, where the number of words to be learned is large, that the child must confront reading situations repeatedly *But this is not repetition of single words as such* There is a corollary to the principle of transposition called the *Law of Segregation*, that *before an object can be perceived as a relatively segregated whole it must have emerged from a large number of relatively* unlike wholes This makes transposition possible *The field of experience* which is to give an "isolated" word its recognition-value must become an *expanded word* Recall what was said a short time ago about the inability of the child to transpose at first He will not be able to recognize an "isolated" word until the recognition emerges from a whole that takes in *many* sentence-situations

Frequent reference in teachers' manuals to control over vocabulary, sentence structure, sentence length, and the like by means of mechanical counts has left the general impression that if a pupil is subjected to these *systematized reading* materials, he automatically will learn to read Although some attention to these factors may be justified, it is obvious that reading ability cannot be developed on this single premise Books written on such a mechanical basis are inane and fail to challenge the interests of the learner

TEACHER *VERSUS* PUPIL PROGRESS

Where Are the Pupils? Confused thinking is evident in this question which is frequently asked by teachers "Where should I be at the end of the first semester?" From a study of clinic cases and from reports of classroom observations, there is a preponderance of evidence to the effect that many teachers are more concerned about where they should be than where the pupils are To no small degree this type of confused thinking undoubtedly has resulted from a misuse of basal materials of instruction For example, it still appears to be common

practice to take all first-grade pupils through preprimers, primers, and first readers in the first grade; to require all fifth-grade pupils to study the same basal spelling list even though some can already spell the words and others cannot spell the words studied in the preceding grades; to require all pupils to memorize the same poems regardless of variations in emotional development; and to give a child more practice on division of decimals regardless of the fact that his trouble may be with multiplication or subtraction of whole numbers. And again, it is not uncommon to find a child literally repeating fifth-grade activities when even a gross analysis indicates serious background deficiencies requiring help at a lower level In view of this situation, it appears that a basic reorganization is needed in the practices that are dictated by the type of thinking expressed in the teacher's question, "Where should I be?"

Reorganization of thinking is required which will permit identification and intelligent care of pupil needs. A reorientation *cannot be achieved* by a *mere rearrangement of pupil desks, by inserting in the school program a period called "activities," by administering a number of new tests, by establishing remedial rooms, by the purchase of a new series of basal textbooks, by designating groups of children by some term other than "grade," or by a sudden revision of home reports Instead, the basic reorganization must be made in terms of the approach to the problem.

Summary

In most schools, the basal reader approach to systematic reading instruction is used Usually one or two periods are set aside each day for directed reading *activities, or reading lessons. Additional* time is allotted in the daily program for follow-up activities This is only one type of approach to the perennial problem of reading instruction.

XIII. The policy of basing a reading program on a single set of basal readers is becoming passé.

A. The misuse of basal-reading materials has been a potent factor in regimentation which has caused the neglect of the needs and interests of the growing child.

B. Promotion on the basis of success in basal-reading activities is being supplanted by policies placing emphasis on child development.

C. One of the chief criteria for the selection of reading materials can be stated thus: Do they meet individual needs and interests?

D. The wide range of reading abilities within a given grade precludes the possibility of using the same readers for the instruction of all pupils.

E. The misuse of basal-reading materials has contributed substantially to current concern about pupil failures and about remedial instruction.

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ditional attention in the follow-up activities.

D. During the introductory reading help should be given immediately and in a manner that facilitates comprehension

E. When a child meets a word-recognition problem in oral rereading, the word should be pronounced for him at once.

VII. The group is prepared for the first reading primarily through discussion *based on previous experiences.*

   A. Accuracy of facts is appraised and developed.

   B. Working concepts are appraised and developed.

   C. A general motive for the survey reading is established.

VIII. The survey, or introductory, reading is done silently to get main ideas and to identify the sequence of events This silent reading makes it possible for each pupil to read at his own rate and to identify specific reading needs.

   A When lip movement, finger pointing, or excessive word-recognition difficulties characterize the silent reading, steps should be taken to regroup

   B. When children can pronounce words *but cannot understand what they read,* they probably should be put in a lower group and given special help on reading for meaning This problem is rare and usually indicates an overemphasis on the mechanical aspects of reading

   C Comprehension is appraised by facial expressions indicating pleasure and enthusiasm, by the appropriateness of spontaneous comments, by responses to different types of guiding questions, and by ability to organize and apply information.

   D. The silent reading is guided by teacher and pupil questions, comments, and suggestions.

   E. Occasionally, beginners may be helped by markers, or liners. These devices are used to help on return sweeps. However, they are reading "crutches" which are not required by every pupil,

and their use should be discontinued as soon as possible.

IX. Rereading should be done both silently and orally, depending on the situation. More oral than silent rereading usually is done in the primary grades.

   A. It is not necessary to read every story orally.

   B. The rereading is done after the introductory reading and group problems have been solved. However, there may be occasion for rereading before the introductory reading is completed.

   C Rereading is made purposeful and interesting by guiding the pupils in establishing legitimate motives, such as to dramatize, to prove a point, and to read to another group.

   D Acceptable oral rereading is characterized by rhythm, accurate interpretation of punctuation, use of a conversational tone, good posture, relaxation, and interpretation of moods.

   E Acceptable silent rereading is characterized by freedom from mechanical and comprehension difficulties, tension movements and head movements, and by a high level of comprehension.

X A directed reading activity may be followed up with help on specific needs or with independent and group research or recreational activities.

   A Workbook materials should be used when the individual has a specific problem to be solved thereby. Not every pupil should be required to engage in workbook activities.

   B Pupils should be carefully prepared for workbook activities.

   C. When the teacher is working with one group, the other groups should be engaged in follow-up or other school activity

   D Flash cards should be used primarily for the development of rapid perception.

XI. When time is at a premium, the rereading of a story may be terminated at the end of an episode.

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continue learning after formal schooling has been completed. Yet we have evidence that the reading habits, for example, of high school and college graduates are of a fairly low order. How can this deplorably low level of reading and study be explained in a land which provides so generously for schooling? One answer to this question may be found in the relatively meager rewards which our culture allows to the superior reader. Another answer is to be found in the emphasis which most schools place on the accumulation of facts and skills which have little application in daily living, and to their excessive emphasis on recitation techniques rather than on learning techniques. In school programs of the newer type teachers strive to discover pupils' interests and to use them in stimulating and directing learning. It is as natural for children to be curious, to ask questions, to try out things, and to seek to know, as it is for them to get hungry, or tired, or sleepy. If they lose this basic "learning" characteristic it is a sign that they are not well or that they have been badly educated. Modern schools are concerned with how children learn, they strive to preserve and to enhance in each individual the joy of learning. Such joy and enthusiasm for learning involve the disposition to ask questions and seek competent answers as they gain control of their learning capacity and the learning processes in their gradual development toward maturity.

READING TO LEARN

Basic reading abilities may be developed through extensive and intensive reading in purposeful situations. On the one hand, the meeting of a personal need may be met by the skimming or rapid reading of a number of references. On the other hand, a personal need may be satisfied only by a study of details that require intensive reading. In either instance, the *purpose* of the reading dictates the kind of reading behavior that is called into service. This means that teachers at all grade levels—including prefirst grade—and of all "subjects" must be concerned with both language and information.

A functional and virile program of reading instruction, therefore, transcends the limits of a basal series of readers. Any program of reading instruction that is limited to the use of a single set of textbooks is doomed to fall far short of the major goals of reading instruction. If used wisely, basal materials, such as textbooks and newspapers published for school use, may become the backbone of a school program, but children need to be taught how to use other learning aids and other types of reading aids.

Use of Functional Situations. In modern schools, the teaching of reading as a subject has been superseded by guidance in reading activities. Reading has no subject matter of its own in the sense that science and social studies have; hence, reading abilities must be developed in functional situations. To translate this point of view into practice requires a reappraisal of the language program, beginning with prereading activities. In fact, the basic reading skills, abilities, attitudes, and information—as described herein—have their foundations laid during the prereading period. In the light of this notion, the modern slogan has become, "Guidance in reading through experience."

Dr. Bernice E. Leary has this to add to a discussion of reading needs (15, p. 232):

So far as the individual child is concerned, there are innumerable factors that influence his reading. How much do we know about them? Can we answer such essential questions as these. Does the child feel a need for reading? What urge sends him to books—to learn how to build a birdhouse; to arrange a stamp collection; to make a toy airplane; to overcome inferiority and defeat; to escape an unhappy home or school life? What is his attitude toward reading generally? Does he like books? Does he have a particular antagonism toward a particular book, story, or kind of illustration? Can he read well enough to enjoy books? What are his interests outside of books? What are his fears, dreams, wishes, hobbies, radio, and movie preferences? What of his home life? Are there books in the home? Is the lighting adequate for reading? Has he ever seen his father and mother read?

So much teacher effort is necessary to aid some children to recognize and remember words and to become fairly independent in reading material assumed to be appropriate for them, that the real *reason* for the acquisition of such a skill as word recognition is lost in a mass of drills and "lessons," some of which to even an informed observer seem to bear little or no connection to a rational reading process . . . It is important, therefore, for the teacher to be guided by the larger purposes of reading in the daily work with pupils   ROMA GANS (7, p. 3)

Toward Better Reading Instruction

There is concrete evidence that reading is better taught today than it was a generation ago More attention is being given to differences in capacities and abilities existing at any one grade or age level, to the broader goals of reading instruction, to readiness for reading at all school levels, to the selection of readable and attractive materials, to the preparation of teachers, to instructional procedures, and to a large number of kindred problems Both educators and publishers have contributed to the improvement of the total reading program

TWO APPROACHES TO THE READING PROBLEM

In general, two approaches are made to the problem of developing basic reading abilities directed reading activities in basal reading textbooks and the development of basic reading abilities through everyday reading experiences This latter is sometimes called the unit, or center of interest, approach It is the

purpose of this chapter to discuss in some detail the second, broader approach

In 1941 an informal committee appointed by the Progressive Education Association with G. Derwood Baker as chairman analyzed and summarized some "recent comparative studies" for their report on *New Methods vs Old in American Education* In one section of the report, the committee emphasized the present trend to give due consideration to the *how* of learning (1, pp 2–3):

Opposition to the introduction of new subject matter is gradually dying out, but the problem of how to teach what young people should know is still being debated. Until recently not enough consideration was given to the fact that the way in which things are learned in school and college is no less important than what things are learned Any task can be learned in ways that are dull and in ways that are interesting, in ways that make one want to learn more and in ways that make one stop learning The ways in which a task can be learned are numerous Newer methods of teaching are concerned not only with *what* is learned but *how* it is learned An educational system worthy of the name should induce young people to

construction?" into "What implications?" Before long the would-be authority on interpretation has become indistinguishable from an authority on "What's what?"—a question which belongs to a more divine science than he may wittingly aspire to

In one sense, reading is a *process* of evaluation. In another sense, reading is a *social tool*, a means of communication. Reading, therefore, is done to meet certain social needs. Primarily by means of oral language, the teacher during the prereading period initiates the development of certain attitudes, skills, abilities, and information regarding reading. The pupils are started on their ways knowing (1) when to read to satisfy needs, (2) where to find information, (3) how to select and evaluate information, and (4) how to organize information. Furthermore, comprehension and retention are strengthened by means of direct and vicarious experiencing and of the development of language facility to deal with those experiences. Through well-planned excursions, demonstrations, classroom projects, and the like, experience is broadened and interests are stimulated. Language facility is developed through conversations, discussions, class-dictated compositions or experience records, preparation of labels, and the like. In the prereading period, it will be noted that the goals of reading instruction are approached through social situations.

Functional Situations Throughout the Grades. In schools where differentiation rather than regimentation prevails, it is possible to continue through succeeding grade levels with the development of language abilities in social situations Furthermore, basal textbooks can still be a part of such a program for the development of reading abilities. They will, of course, play a somewhat less prominent role than they do in highly regimented schools. For example, oral reading abilities should be developed primarily in audience-type situations, and this doesn't mean in classes in which every pupil has a copy of the same book. In short, the emphasis should be on reading as an evaluating process and as a social tool throughout the reading program—from the prereading period to the end of the school career.

SYSTEMATIC GUIDANCE IN EVERYDAY READING

In many modern schools, the instructional program is based on a series of units of activity Even the biology teacher at the high-school level develops his course around certain planned units of work. Since all teachers are dealing with both facts and language, they must recognize group and individual differences in control over language-fact relationships. This means that the goals of reading instruction must be kept clearly in mind when developing an activity unit

No phase of instruction should be left to haphazard treatment or hand-to-mouth planning All phases of child development are given consideration by master teachers. Guidance in reading, therefore, should be systematically planned. Both teachers and pupils must be motivated by means of clear-cut goals. The teacher may have long-time learner goals in mind, such as the development of the ability to locate information, select, evaluate, etc. At all times, too, the pupils must know where they are going and why. Systematic instruction is characterized by systematic motivation. Instruction is systematic to the degree that it is differentiated in terms of pupils' needs, interests, and capacities.

Responsibility of Teacher to Use School Activities. A reading-to-learn approach is made to the reading problem when each teacher accepts the responsibility of developing basic reading skills and abilities in everyday school activities. To make this approach, it is necessary for the teacher to give careful attention to certain preliminary considerations: First, the teacher must know his pupils. To obtain this information it is not necessary to indulge in an elaborate program of standardized tests. Observations, conferences

Without an intimate knowledge of the child, gained through conversation and interview, diaries, anecdotal records, questionnaires, records of book withdrawals, and accidental observation of his unsupervised play and reading activities, guidance cannot be effective

To promote the reading interests of each child, obviously requires books, and more books—walls of books that overflow on desk, table, stair landing, and window sill, books that invite him to hold them in his hands, to snuff their leather, to feel their smoothness, to dip into their pages "Surround a man with Carlyle, Emerson, Thoreau, Chesterton, Shaw, Nietzsche, and George Ade," says the old bookseller in Morley's *Haunted Bookshop*, "would you wonder at his getting excited? What would happen to a cat if she had to live in a room tapestried with catnip?" I should like to add, "What would happen to a child if books in the schoolroom were as pro-

fuse as are the comic magazines on the corner newsstand?"

As indicated by Professor I. A. Richards, reading is done to meet certain needs (19, pp. 20-21):

We always read for some purpose—unless some sad, bad, mad school teacher has got hold of us There is no such thing as merely reading words, always through the words we are trafficking or trying to traffic with things —things gone by, present, to come or eternal So a person who sets up to teach reading should recognize that he may be more ambitious than he seems He may pretend he is only concerned to help people not to mistake one word for another, or one construction for another That, so far, doesn't look like an attempt to finger the steering wheel of the universe But "Which word is it?" turns into "Which use?", and the question "Which

DEVELOPING READING ABILITIES

Clark M Frazier, Bernice Bryan   *Cheney, Wash*

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with parents, the use of informal inventory techniques, and some knowledge of previous school experiences will give the teacher needed, broad understandings The teacher can expect wide variations among pupil backgrounds in a given classroom and from one classroom to another.

Second, the teacher must be a capable organizer of curriculum experiences The reading-to-learn approach probably is most effective when learning is organized around large areas of experience, or centers of interest. This requires blocking out large units of work and experimentation with the organization of learning obtained It is no professional secret that many pupils are taught to verbalize (i e , parrot words without understanding the things for which they stand) because they have been taken too fast through many "subjects." A good organizer of learning experiences will see to it that fewer constructs, or concepts, will be developed but that these constructs will be developed in some detail Without science experiments observed by and often performed by the pupils, learning is likely to result in verbalism Likewise, history or geography learnings obtained from reading are likely to have little significance to the learner when reading is not re-enforced with other learning aids such as maps, globes, pictures, excursions, etc In short, a capable organizer will establish clear-cut goals as to how she expects to modify the behavior of her pupils and will organize large units of experience to achieve those goals Cluttered learnings resulting from the compartmentalized teaching of subjects will be reduced thereby

Third, the teacher must be an able classroom administrator When instruction is regimented by requiring all the pupils in a given class to pursue their learning in the same basal textbook, the teacher can be a hearer of lessons, a high paid clerk. There is a minimum of confusion because all pupils go through the same routine like automatons. On the other hand, in a classroom where instruction is differentiated, the teacher is a director of learning. Here teaching is animated because each pupil is solving his own problems. Reading abilities and interests vary widely in a classroom, hence the pupils will be working individually or in small groups. The pupils must be working toward common goals, they must learn how to work together effectively, they must be taught to plan co-operatively, and they must be taught how to evaluate their achievement. This requires competent classroom administration

Discussions Well-organized and directed discussions are potent learning aids Pupils who have difficulty in using reading as a learning aid stand to profit considerably from class or group discussions. Discussion can be used to bring about a clear statement of a problem; to summarize the personal experiences of members of the group; to identify the problems, questions, or subtopics requiring investigation; to round up possible sources of information; to evaluate information, and to organize and summarize data obtained by individual and group efforts Well-motivated discussion gives emotional tone and impetus to learning Through directing discussion, the teacher has an opportunity to appraise pupil backgrounds and to detect needs.

No less an authority than John Dewey contributes this evaluation of discussion (6, p 264):

A vital discussion will make the underlying problems stand out in sharply defined focus. Instead of treating all facts and statements at on the same intellectual level, thus destroying intellectual perspective, and hence giving no opportunity for judgment to appraise what is important and what secondary, the discussion should be conducted so as to center thought on a few main points around which other considerations will be organized It will lead the student to turn back and go over what he has learned from his prior personal experiences and what he has learned from others (to reflect), so as to find out what bears, both positively and negatively, on the subject in

hand. Although discussion will not be allowed to degenerate into mere "arguying," a lively discussion will bring out intellectual differences and opposed points of view and interpretations, so as to help define the true nature of the problem. Humor is always in place, as well as sympathy for the pupil struggling with an idea that he has difficulty in laying hold of

Values of Informal Situations. The development of basic reading skills and abilities in everyday reading situations has several advantages which may be listed as follows:

1. Guidance in reading is continuous and, therefore, a general improvement should result.

2. Pupils are taught to do purposive reading, hence critical interpretation should be improved and accompanied by better attitudes

3 Both extensive and intensive reading skills and abilities are developed.

4. Better social adjustment is achieved through the use of materials adapted to the level of individual reading achievement and by the active participation of all pupils in class enterprises.

5. Reading is acquired as a social tool and, therefore, is more likely to be used to meet out-of-school needs

6. Reading is put in better perspective for the learner because other learning aids are used. Pupils are taught when to use reading to satisfy needs.

7. Reading interests are extended and enriched through the use of a variety of reading materials that are readable for each individual.

8. The skills, abilities, attitudes, and information required for the location of information are developed in connection with personal needs and, therefore, are likely to be used in solving problems outside the classroom

9 Critical interpretation is enhanced by careful selection and evaluation of information in terms of both individual and class needs.

10. Pupils are taught to organize information for first-hand use or for communication to others, hence other facets of language are developed.

Hockett and Jacobsen suggest that the teacher should ask herself these questions before initiating a unit of work (10, p. 77)

1 What things can the children do to enrich their store of knowledge and experience in the field opened up by the unit? What activities, what trips, are feasible and productive?

2 What problems will the children have to solve in relation to these experiences? What other problems might be raised? What important questions can be raised in order that the children may be led into fruitful research? What group and individual reports are possible?

3. What can other fields of knowledge—the arts and sciences—contribute to these studies? What related activities will grow out of these contributions? What means of expression will be utilized?

4. What subject matter will the children cover in carrying on the unit? *The teacher checks with the course of study* to see whether specific requirements will be met.

5 How will the skill subjects needed by the children be provided?

6. *What opportunities for stimulating worthy interests related to the unit lie in the children's immediate environment?*

7. What outlines of similar units carried on by other teachers are available?

8 What construction materials are needed? What materials are available? What books, magazines, and other research materials are within the ability range of her group?

SYSTEMATIC DEVELOPMENT

The systematic development of a unit of activity should keep ever before the learner the purposes of his activity. Stated very simply, the development may proceed somewhat as follows: What is the problem? What is already known about the problem? What do we want to know? Where can we find help? How

with parents, the use of informal inventory techniques, and some knowledge of previous school experiences will give the teacher needed, broad understandings. The teacher can expect wide variations among pupil backgrounds in a given classroom and from one classroom to another

Second, the teacher must be a capable organizer of curriculum experiences. The reading-to-learn approach probably is most effective when learning is organized around large areas of experience, or centers of interest. This requires blocking out large units of work and experimentation with the organization of learning obtained. It is no professional secret that many pupils are taught to verbalize (i.e., parrot words without understanding the things for which they stand) because they have been taken too fast through many "subjects." A good organizer of learning experiences will see to it that fewer constructs, or concepts, will be developed but that these constructs are developed in some detail. Without science experiments observed by and often performed by the pupils, learning is likely to result in verbalism. Likewise, history or geography learnings obtained from reading are likely to have little significance to the learner when reading is not re-enforced with other learning aids such as maps, globes, pictures, excursions, etc. In short, a capable organizer will establish clear-cut goals as to how she expects to modify the behavior of her pupils and will organize large units of experience to achieve those goals. Cluttered learnings resulting from the compartmentalized teaching of subjects will be reduced thereby

Third, the teacher must be an able classroom administrator. When instruction is regimented by requiring all the pupils in a given class to pursue their learning in the same basal textbook, the teacher can be a hearer of lessons, a high paid clerk. There is a minimum of confusion because all pupils go through the same routine like automatons. On the

other hand, in a classroom where instruction is differentiated, the teacher is a director of learning. Here teaching is animated because each pupil is solving his own problems. Reading abilities and interests vary widely in a classroom, hence the pupils will be working individually or in small groups. The pupils must be working toward common goals, they must learn how to work together effectively, they must be taught to plan co-operatively, and they must be taught how to evaluate their achievement This requires competent classroom administration.

Discussions Well-organized and well-directed discussions are potent learning aids. Pupils who have difficulty in using reading as a learning aid stand to profit considerably from class or group discussions. Discussion can be used to bring about a clear statement of a problem; to summarize the personal experiences of members of the group; to identify the problems, questions, or subtopics requiring investigation, to round up possible sources of information; to evaluate information, and to organize and summarize data obtained by individual and group efforts Well-motivated discussion gives emotional tone and impetus to learning. Through directing discussion, the teacher has an opportunity to appraise pupil backgrounds and to detect needs.

No less an authority than John Dewey contributes this evaluation of discussion (6, p. 264):

> A vital discussion will make the underlying problems stand out in sharply defined focus. Instead of treating all facts and statements as on the same intellectual level, thus destroying intellectual perspective, and hence giving no opportunity for judgment to appraise what is important and what secondary, the discussion should be conducted so as to center thought on a few main points around which other considerations will be organized It will lead the student to turn back and go over what he has learned from his prior personal experiences and what he has learned from others (to reflect), so as to find out what bears, both positively and negatively, on the subject in

hand. Although discussion will not be allowed to degenerate into mere "argufying," a lively discussion will bring out intellectual differences and opposed points of view and interpretations, so as to help define the true nature of the problem. Humor is always in place, as well as sympathy for the pupil struggling with an idea that he has difficulty in laying hold of.

Values of Informal Situations. The development of basic reading skills and abilities in everyday reading situations has several advantages which may be listed as follows:

1. Guidance in reading is continuous and, therefore, a general improvement should result.

2. Pupils are taught to do purposive reading, hence critical interpretation should be improved and accompanied by better attitudes.

3. Both extensive and intensive reading skills and abilities are developed

4. Better social adjustment is achieved through the use of materials adapted to the level of individual reading achievement and by the active participation of all pupils in class enterprises

5. Reading is acquired as a social tool and, therefore, is more likely to be used to meet out-of-school needs

6. Reading is put in better perspective for the learner because other learning aids are used Pupils are taught when to use reading to satisfy needs

7. Reading interests are extended and enriched through the use of a variety of reading materials that are readable for each individual

8. The skills, abilities, attitudes, and information required for the location of information are developed in connection with personal needs and, therefore, are likely to be used in solving problems outside the classroom.

9. Critical interpretation is enhanced by careful selection and evaluation of information in terms of both individual and class needs.

10. Pupils are taught to organize information for first-hand use or for communication to others, hence other facets of language are developed.

Hockett and Jacobsen suggest that the teacher should ask herself these questions before initiating a unit of work (10, p. 77):

1. What things can the children do to enrich their store of knowledge and experience in the field opened up by the unit? What activities, what trips, are feasible and productive?

2. What problems will the children have to solve in relation to these experiences? What other problems might be raised? What important questions can be raised in order that the children may be led into fruitful research? What group and individual reports are possible?

3 What can other fields of knowledge—the arts and sciences—contribute to these studies? What related activities will grow out of these contributions? What means of expression will be utilized?

4 What subject matter will the children cover in carrying on the unit? The teacher checks with the course of study to see whether specific requirements will be met.

5 How will the skill subjects needed by children be provided?

6. What opportunities for stimulating worthy interests related to the unit lie in the children's immediate environment?

7. What outlines of similar units carried on by other teachers are available?

8 What construction materials are needed? What materials are available? What books, magazines, and other research materials are within the ability range of her group?

SYSTEMATIC DEVELOPMENT

The systematic development of a unit of activity should keep ever before the learner the purposes of his activity Stated very simply, the development may proceed somewhat as follows: What is the problem? What is already known about the problem? What do we want to know? Where can we find help? It

Clark M. Frazier, Bernice Bryan   Cheney, Wash.

can we find help? Who will find the information? Who will answer our questions or solve our problem? How shall we put together the information; or, how shall we apply or use the information? From a series of language experiences of this nature critical comprehension abilities are acquired, and retention, or remembrance, is insured from daily usage of the learnings.

What Is the Problem? The initiation of a new unit of activity or the solving of a problem in the kindergarten or at a higher-grade level requires procedures based on a consideration of the goals of instruction. The first step, of course, is a clear-cut identification of the problem to be solved or the topic to be studied. A center of interest, such as the care of pets, may require intensive study for a few days and the putting into practice during the school year of what was learned. Other topics such as the study of certain aspects of transportation (e.g., trains and busses) or of communication (e.g., how the mail is handled) may require longer periods of time for development. The first step, however, is a careful statement of the problem under consideration.

What Is Already Known? Following the identification of the center of interest, the next step is a pointing of teacher and pupil experiences toward the new problem. Through class or group discussions, information on the new topic is shared and summarized by the class under the guidance of the teacher. Often this can be a listing of interesting statements of facts about the new topic. This pooling of experiences heightens interest; reveals individual pupil preparations for the new topic; exposes background deficiencies; brings to light faulty notions; facilitates pupil relating of language and facts; and, in general, brings to bear on the topic the varied past experiences of the pupils. Both pupils and teacher may challenge

the validity of statements, thus making clear the need for accurate information. The chief purpose of this second step is to analyze and summarize "What we know about the new topic or problem."

Even in the most formal spelling program, steps are usually taken to pretest for the purpose of identifying the specific words that need to be studied. Industrial management is spending increasingly large sums of money to appraise worker readiness for a given task. The authors of manuals for basic reading-readiness books and for basal reading books emphasize the need for orientation or preparation for a given developmental activity. Hence, in the development of a unit of activity at any school level, it appears reasonable and essential for the teacher to determine "What we already know about the topic."

What Information Is Needed? From the discussion that reveals what is already known about the topic, certain questions naturally arise. After the shared information has been organized, the next step is the statement and organization of the questions and problems on which more information is required. "What do we want to know?" or "What do we need to know?" then becomes the chief concern of the pupils. Suggestions should come from both pupils and teacher. Not all of the guiding questions will be raised during this preliminary planning period, for other questions will be brought in as the study of the unit progresses. Selection, evaluation, and organization—highly important language (and reading) skills and abilities—will be brought into play as the questions are organized.

In the traditional type of school, the learning outcomes were kept as a secret by the teacher until the final examination. Teachers in modern schools, however, give direction and purpose to learning activities by guiding pupils in the statement and evaluation of their needs.

Interesting side questions are sometimes introduced in discussions that lead to the setting up of purposes for reading. At one time in the experience of the writer, a group of children were discussing different kinds of domestic animals. This led to a discussion of the names for different kinds of meat. Suddenly it occurred to one pupil that pork comes from hogs and beef from cattle, but what would a butcher call goat meat? While this learning would not rank very high in a scale of values, the whole class became interested in the topic to the extent that they used outside time to run down the answer. (Lest the reader become frustrated at this point, the flesh of a goat is called *chevon*.)

An excellent example of children's questions is found in Miss Maude E. Lilley's report of a unit of work on *Pets*. These six-year-olds raised questions which required considerable investigation (17, pp 107-108).

Does a turtle ever come all the way out of its shell?

Does a tadpole die when it becomes a frog?

Where does the tail go?

What makes bubbles in the water? (when we put in fresh water)

What makes the saw get warm?

Could a turtle eat a tadpole?

Why does a rabbit always hop?

Will a rabbit and a guinea pig be friends?

Does a dog always chase a rabbit?

Why does the rabbit make a noise with his hind feet when a dog is in the room?

How can a fish get air?

How long does a hen sit on her eggs?

How do the little chicks get out of eggs?

What makes some chicks black, some yellow, etc.?

How can the little chicks breathe under the mother's wings?

Do rabbits like radishes?

Teachers are dealing with life; their pupils are interested in life. This means that their pupils will ask many questions that should not be brushed aside for a lack of information. The teacher should build pupil confidence and co-operation by referring them to authentic sources of information. In a discussion of "Living Democracy" Vita Stein, a newcomer to

the United States, related this story of a classroom experience (20, p. 122):

> I myself was very dependent on the dictionary and encyclopedia. Whenever a question arose, we asked these books for help. So great was my students' confidence in these silent helpers, that when I could not give a satisfactory answer to their question as to "What God looks like," a very gentle voice asked "Mrs Stein, why don't you look it up in the dictionary?"

"What we know" and "What we want to know" may be organized on the blackboard in the same way that a class-dictated composition, or experience record, is prepared. For reading-readiness groups, this procedure facilitates the association of symbols with meaning and for groups that have some reading ability both language facility and information are developed As the work on each part of the unit is completed it may be transferred to charts for more or less permanent records

Knowing what to read for provides a mind-set that contributes to purposeful activity Professional literature on learning emphasizes and re-emphasizes the role of attitudes in fruitful learning situations The significance of mind-set, or right attitude, is ably summarized by Dr Gerald A. Yoakam, a specialist on study problems (23, pp 5–6)

> Psychologists and philosophers seem to be coming to the general agreement that the mental set is of crucial importance in learning The relative importance is even greater than has been thought Tremendous waste in learning results from failure on the part of teachers to regard the development of favorable attitudes as of paramount importance Willingness to learn is far more important than method of learning, for, whereas there may be several different methods of learning a given skill or set of facts, or of getting a given adaptation, the possession of a favorable attitude is essential before the learner is disposed to utilize any of these methods in reaching a given objective To misquote an old adage, "There are many ways of leading a horse to water, but you can't make him drink" unless he is thirsty

Where Can We Get Our Information? After the purposes of the new unit are clearly established as "What we want to know" so that the pupils know where they are going, the next step is a discussion of sources of information. This may entail an inventory and appraisal of community and school resources. A trip to the post office or railway station may provide the information on one or more questions Someone may know Mr. Jones, the owner of an apiary, who might be invited to talk to the class on bees. Several members may offer to bring a collection of colonial pieces to school for an exhibit Pictures and stereographs showing certain activities may be located Finally, books and magazines will come in for consideration For reading-readiness groups and primary classes the teacher may do the reading necessary to answer the questions. In short, many aids to learning, including reading, will be canvassed for possibilities

From a discussion of "Where can we get our information," pupils begin to acquire notions about when needs can be satisfied through reading Other things being equal, reading will be found to be a most satisfactory means of securing information to solve everyday problems and of using recreational time. For certain types of information, they learn to consult a science book, an encyclopedia, a globe, a map, or some other source of information For sheer enjoyment, they are taught to seek picture books, story books, and the like This type of reading-readiness development is as crucial at the pre-reading level as it is at the high-school level as it is at the preceding level, the chief difference being the experience the pupils have had in dealing with reading and other types of learning aids

As reading abilities are progressively developed, the pupils have increasing need for skills, abilities, and information that permit them to locate pertinent information quickly. They need to be taught how to turn pages, to find pages quickly, to use story or chapter titles, to use the library effectively, and so on.

A SCIENCE DEMONSTRATION

ability to relate information. By considered attention to the selecting of appropriate information and to the careful evaluation of that information, superstitions are destroyed, erroneous notions are corrected, vocabulary is extended, language development is facilitated, and experiences are enriched.

During the prereading period, most of these selection and evaluation activities will be carried out in class and group situations. As reading abilities are developed, more and more of this type of activity will be used in group and individual situations. It is important, however, to note that the development of these basic abilities is initiated during the prereading period under skilled teacher guidance. The pupils are gradually inducted into the realm of critical interpretation and in that sense they become independent readers, or intelligent consumers of information.

How Shall the Information Be Organized?
Selection, evaluation, and organization are companion language skills to be acquired by all efficient readers. In a sense, they are the keystone of critical comprehension. Selection, evaluation, and organization are not necessarily formal one-two-three steps in developing language abilities needed for the study of a given unit of work. Information is organized for the purpose of applying facts to the solution of a personal problem or for communication to others interested in the same problem. In addition, well-developed organization abilities permit the learner to perceive relationships between facts, and, therefore, contribute to intelligent interpretation. Hence, organization abilities rank high on a scale of values.

Information can be organized in a number of ways, depending upon the needs in the situation and the language

abilities of the learners. During the pre-reading period, the information may be organized in well-directed discussion. At this level, the information may be organized on the bulletin board, blackboard (if desired, later transferred to charts), or art easel. At times, the information may be used in constructing a map of the community on the floor of the room or in completing some other type of construction project. The form of the organization of the information should be determined by the use to which it is to be put.

During the prereading period, the information secured from a number of sources, including the printed page, may be organized in the form of an experience record, or class-dictated composition. In this type of situation, teacher guidance is given on selecting a title that gives the main idea of the summary and on organizing paragraphs and sequence of sentences in each paragraph. Usually, however, such summaries at this age level are brief, containing only a few selected statements about the main topic. Organization abilities are developed through class-dictated records in the kindergarten and primary grades. (See chapter on Initial Reading Experiences for a detailed discussion of the specific procedures.)

Arts and crafts projects may be used to summarize information. A class-planned frieze or map, an orange-box movie strip, the construction of a class grocery store or airplane—these and other types of activities require the abilities to organize and apply information. In some instances, resourceful teachers have taken pictures of the stages in the development of a unit of work and have combined them with the art products of the pupils in the preparation of an interesting booklet for the reading center. This type of combined art and language project often leads to the organization of a table of contents to show what is in the booklet.

The following is an example of the outcome of this type of activity reported by Miss Helen Reynolds (18, p. 31):

Listing, or one-point outlines, of answers to questions, is another serviceable way to organize information with beginners. Relationships among ideas can be established in the pupils' minds by a careful consideration of the sequence of the statements These statements should be pupil-dictated, evaluated, and organized with teacher guidance.

Traditional techniques of organization include outlining, summarizing, and précis writing. One- and two-point outlines for relating main ideas and supporting details are often needed in the primary grades. Summaries of one paragraph or more are used, beginning with the prereading period Précis writing, of course, is used in high school and college. While these are excellent means of organizing facts, they are highly abstract.

True-false tests and other artificial means of checking comprehension lose much of their significance when adequate attention is given to the organization of information during the development of a unit of activity. Furthermore, outlining and summarizing are not the only means of organizing information. Proportion in a pupil's art project, the relating of information in a graph or pie chart, modified pupil behavior as a result of having secured information on how colds and infectious diseases are spread—these and similar manifestations of evaluation and organization usually provide ample evidence of comprehension. To the degree that these abilities are continuously developed and appraised in functional situations there are

fewer reasons for the use of artificial test devices

General Considerations

Reading is a complex of abilities, skills, attitudes, and information. If the teacher is to regard reading as the reconstruction of the facts behind the symbols, then she must not only appraise the child's background of experience that gives meaning to the symbols, but also provide guidance in establishing learner purposes which give fullness and tone to the constructs, or concepts, obtained by reading. Since reading is a very important learning aid in most school activities, it follows that systematic guidance in reading is a perennial problem requiring the attention of all teachers This responsibility for developing pupil control over language-fact relationships cannot be side-stepped by any line of argument.

The following is a discussion of some general considerations regarding the everyday development of basic reading abilities wherever and whenever reading is used as a learning aid.

All-school Development of Basic Reading Abilities When all teachers are prepared for and accept the responsibility of providing guidance in reading, the instructional program of the school is improved in a number of ways. First, basic reading abilities are developed in lifelike situations, hence the need for artificial motivation is reduced and reading needs are brought out in bold relief for the learner. Second, more attention is given to the selection of appropriate instructional materials in terms of both content and difficulty of the reading material. The reading abilities of the pupils in a given grade vary widely. It has been found that reading abilities at the fifth-grade level, for example, vary from about pre-primer level to about twelfth-grade level. Teachers who are professionally prepared to guide learning activities involving reading recognize this wide range of abilities to deal with reading materials

by the selection of appropriate textbooks and other instructional materials. Third, providing guidance in reading when and where the instruction is needed shifts the instruction from a regimented to a differentiated basis. When individual needs are met, the effectiveness of instruction is raised to higher levels. When teachers become sensitive to the complexity of the reading process and to the wide range of reading abilities within a class, they see the fallacies of using a single textbook for an entire class. It is no professional secret that as many as forty per cent of the pupils cannot *read* a textbook written for use at a given grade level. In summary, the recognition of the reading problems by all the teachers in a school gives reality to the development of basic abilities, calls attention to the need for the careful selection of reading materials, and makes imperative differentiated instruction. The solution to the present reading situation must come through the all-school-development-of-basic-reading-abilities approach.

Reduction of Remedial Reading Needs. Too often, remedial reading programs are inaugurated to compensate for basic defects in the school program. While it is true that there will always be a need for remedial-reading instruction, wholesale remedial reading programs cannot be justified. When ten to twenty-five per cent of the pupils appear to be in need of remedial reading, a careful appraisal should be made of the school program producing this result. Many factors may contribute to this situation. Frequently, it has been found that remedial reading has been instituted for the purpose of bringing all pupils up to some mystical "grade average" so that the teachers could regiment instruction more successfully. No special research project is required to identify the fallacy of this type of "reasoning" because it is well known that *education increases individual differences*. The need for remedial-reading programs is reduced almost to the degree that each teacher assumes the responsibility for de-

veloping reading abilities in all areas of learning where reading materials are used.

Improvement of Social Adjustment. Children who experience difficulties in reading situations are not all dull or stupid. In fact, a substantial percentage of retarded readers have *normal* or *superior* intelligence. When teachers make regimented use of instructional materials and when they depend upon the teacher of reading or English to solve every pupil's reading problems, personality problems are bound to develop. For example, it is not uncommon for a child with an unanalyzed reading problem to withdraw from the reading situation by becoming a *disciplinary problem* or by "crawling into his shell." When these pupils see their contemporaries making normal progress, they *sometimes* conclude that they are "dumb." This type of reaction and rationalization does not produce adequate social adjustment.

Adequate social adjustments may be fostered in a classroom where the teacher has clearly in mind the direction in which she expects to modify behavior (i.e., the objectives of instruction) and the procedures which will make possible differentiated learning goals. A competent teacher begins where each pupil is—in terms of capacity, abilities, interests, and needs—and guides his development in appropriate channels. This calls for a blocking out of larger areas of experience, a pupil understanding of the goals to be achieved, the careful selection of learning aids in terms of the ability of each pupil, and provision for individual pupil contribution to the class interests. For example, the pupils may turn to current events as one source of information. If the teacher has done a competent job of selecting materials, different levels of reading abilities within the class will be catered to. A third-grade class will not be confronted with a current events magazine or newspaper written for the so-called third-grade level. Instead, there will be made available beginning-reading materials, "second-grade" newspapers, "third-grade" newspapers, "fourth-grade" newspapers, and so on. Materials written at five or more levels of reading difficulty may be obtained for the same cost as the same number of copies written at one level of reading difficulty. What *is more important* is that all the pupils will have an opportunity to contribute to the class discussion.

Improvement of Reading Abilities. When every teacher assumes her obligation of guiding pupils in their reading activities, the need for differentiating reading instruction in terms of reading abilities and of needs becomes clear. Teachers who have fallen into the regimentation rut of their predecessors are usually faced with many perplexing problems when they attempt to put their instruction on a common-sense basis. Here is a typical predicament. "I must cover the work outlined for my grade or the next teacher *will* complain *What shall I do?*" She should ask, "Have I ever seen a whole class up to grade level?" and "Did the teacher or the children cover the work outlined for the grade last year?" To these questions might be added, "Has the teacher of the next grade ever had a whole class ready for the work she has outlined?" and "Who said *all* children must learn the same things with the same level of achievement?" Where regimented instruction prevails, it is the teacher, not the pupils, who "cover" the work outlined for a given grade level. When the doubting Thomases have their shoulders pinned to the mat with facts, they usually pass the buck to the supervisor, the superintendent, or the state department of education. Such is *life* in a regimented school classroom.

Here is a plain fact. All successful remedial-reading teachers begin with the pupil's present level of reading achievement, not with the level designated by the pupil's grade classification. When this is done, most children make substantial progress. In other words, a child with "preprimer-level" reading ability

even in the sixth grade would be more nearly ready for so-called seventh-grade activities if the teacher started where he is (i e, with preprimer material) rather than having him drill on sixth-grade materials This is an undecorated fact that can be and that has been demonstrated.

Here is another fact. Teachers who regiment instruction by requiring all pupils to "read" the same basal textbooks in "reading," science, social studies, mathematics, etc, find themselves in the uncomfortable position of having "covered the course of study" with about one half of the class In this type of situation, some of the pupils will be found by actual test to have regressed in their reading abilities This is a fact that can be and that has been demonstrated.

And so it follows that guidance provided whenever and wherever reading activities are involved is a sound approach to solving the present reading situation Reading abilities are improved to the degree that every teacher develops competency in the guidance of learning activities that require the use of reading and study skills.

Differentiated Instruction in Language Arts

The child is born into a world of language; hence, language instruction begins at birth To no small degree, the home modifies language habits, attitudes toward the use of language, and background of experience. In the home and in the neighborhood, the young child learns his pronunciation of words; cultivates usage habits, acquires attitudes toward socially acceptable uses of language, and extends his verbal and nonverbal experiences In short, before admission to the kindergarten or the first grade, he has learned to make some use of oral language to satisfy his physical, mental, and emotional needs How the child speaks and what uses he makes of speech are established fairly well between birth and admission to school.

School, then, becomes the great melting pot into which a wealth of differences is poured. These differences are far in excess of likenesses because each child is unique unto himself. Differences in environment have accentuated the uniqueness of each personality. Regardless of whether the teacher regiments or differentiates instruction, these differences in language development, experience, and all the other factors contributing to the development of personalities are extended as a group of children progress through school. Interactions among personalities in both guided and random social situations in this great melting pot called the school may bring about a community of interests. However, this diversity of personalities cannot be poured into the same mold for cooling into like patterns Instead of producing homogeneous groups, education tends to increase the differences in achievement among a group of children. One of the chief challenges to teachers is that of providing guidance in terms of the differences that actually exist in every classroom.

Language Instruction for Efficient Citizenship. Language instruction—i e, speech, reading, and writing—is provided in the elementary schools for the purpose of developing efficient citizens. To achieve this goal, it is necessary not only to guide the children in their acquisition of language skills and abilities but also to teach them how to use language. For example, a child may learn how to write a thank-you note but he may not be socially sensitive to the situations in which the thank-you note is called for. It would be, therefore, a gross error for the teacher to assume that an instructional job in language has been completed when a child has merely established control over writing skills and abilities It is equally important for the child to know when to write and what to write In a well-planned instructional program in language, specific skills and abilities cannot be divorced from the job to be done.

Language, a Social Tool. Language was devised as a means of communication. It, therefore, has been developed as a social tool. If language is to be developed in classroom situations so that the pupils can use it as a social tool, then it must be developed in social situations. This means that the pupils must have something of personal interest to talk or to write about. Language is not a subject to be taught in isolation from experience. To be most effective, guidance in language development must be given when the pupils are dealing with the problem of communicating their experiences to others. By and large, speaking, reading, and writing needs legitimately stem out of other curriculum experiences.

When writing skills are taught in isolation from content, there is little to motivate the pupil to want to learn. Furthermore, there is always the very real danger that the pupil will not see the relationship between the language skill and its use in normal writing activities. Children's handbooks of style, language workbooks, and language textbooks are to be looked upon as useful references to be used systematically for the improvement of language expression.

FIRST EXPERIENCES WITH WRITING

When the child comes to school his first writing experience is likely to be in lettering his own name. Since he has had few, if any, previous experiences with visual symbols, he usually is quite unprepared for more extensive writing activities.

The wide use now being made of ex-

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perence records, or class-dictated compositions, to induct children into reading activities is a boon to general language development. Experience records are not only a legitimate and useful approach for initiating the child into reading instruction but also they are a fruitful means for developing basic writing abilities at both elementary- and secondary-school levels Dictated records, then, are likely to be the child's first genuine experiment in organizing his experiences in written language form for communication to others.

Kinds of Records Experience records in the primary grades range all the way from class- or group-dictated summaries of excursions to charts and labels These "writing" situations include the listing (one-point outlines) of information or of questions, the writing of invitations and thank-you notes, the writing of letters to obtain information of general class interest, the construction of a large community map, the preparation of a

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calendar, the organization of the duties of class committees, the reproduction of a thermometer to show daily temperature, the summarizing of current events in connection with an outline map or globe, the making of labels for exhibits and supplies, and numerous other uses of visual symbols for sharing interests and for communication with others outside the classroom. As these experiences are translated into language and reorganized and revised under the guidance of the teacher, the child gradually acquires facility in language expression that is more exacting than casual conversation.

Extension of Reading Situations. These initial "writing" experiences are buttressed with reading contacts. Language experiences are extended in reading situations through discussions of story *titles*, reading *sentences* that give a specific an-

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TAKING NEWS PHOTOGRAPHS

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development of facility in written expression is no exception. Systematic instruction does facilitate learning.

Guidance Where Needed. Systematic instruction calls for giving guidance when there is a *need* and when there is *readiness.* Speaking, writing, and reading needs exist when there is something to speak, write, or read about. A specific language need arises when the learner finds himself unable to make his thoughts clear to the reader. When the need for communication by means of writing is recognized by the learner, one criterion of readiness for learning is met. However, a child may have writing needs but an inadequate background of skills, abilities, and information for meeting those needs. Hence, readiness embraces more than a felt need. Systematic instruction requires not only a recognition of pupil needs but also the initiation of the instruction at the learner's level of achievement.

"EXTRA!"

Bertha Smith *Yonkers, N.Y.*

swer, and interpretation of *punctuation.* And so the child is no novice in language when he is *ready* for a third-grade language book. He has developed some sentence sense; he has noted the uses of punctuation; he is aware of the uses of capital and lower case letters; he has begun to develop a spelling consciousness; he is sensitive to the value of one-point outlines and paragraphing for organizing ideas; he probably has some feeling for the differences between statements and questions; he has improved his control over correct usage; he has had many delightful experiences on special holidays; and he is aware of some of the social amenities.

SYSTEMATIC INSTRUCTION

A number of investigators have demonstrated the effectiveness of systematic guidance in several learning areas. The

The principles basic to systematic instruction are violated when every child in a certain grade is given the same textbook prescription. This is especially true in regard to language instruction—whether it be in speech, reading, or writing. The first question the teacher must ask is this: "Is the child ready for instruction at this level?" If not, the question is, "What is his level of achievement?" If the child is ready, the question is, "What needs does he have at this level?" To be systematic, instruction must begin where the child is.

The need for remedial language activities is reduced to the degree that it is possible for the teacher to begin where each learner is. Fortunately, most children will respond to systematic first-teaching. Greater gains in language development can be expected when the teacher takes the necessary steps to find out where each child is and provides instruction in terms of that evidence. *Instruction, therefore, is systematic to the degree that differentiated guidance is given.*

DIFFERENTIATION

In the schools of yesteryear, pupil attitudes left much to be desired, costly pupil failures were the rule, and remedial instruction was the order of the day. Much of this situation was brought about by a type of teaching that almost a century ago was labeled as *regimented* instruction. Instruction was said to be regimented because each child in a given grade was given the same learning prescription regardless of his level of achievement or of his particular needs. Since then, education has gone a long way. Teachers are better prepared for their arduous tasks; the materials of instruction have been improved, better understandings of how children learn have been achieved; and the goals of instruction have been clarified by investigations of social needs. Today the emphasis has been shifted from the holding of classes to the differentiation of instruction for the purpose of meeting small group and individual needs within the class.

Many ways and means have been devised for differentiating instruction. Most investigators have concluded that any plan is "made or broken" in the classroom. Each teacher must make the final provision to care for differences within the classroom. Just what form the differentiation takes depends upon the preparation of the teacher, the means used for determining achievement levels and specific needs at those levels, the characteristics of a given class of children, and the available instructional materials. Each classroom teacher, therefore, has a large responsibility in the administration of class activities to the end that equal learning opportunities are provided for all the children in a classroom.

Summary

This chapter is a description of procedures for guiding the everyday language activities of children. Important points made in this chapter are summarized in the following statements:

I There appears to be evidence to the effect that reading instruction has been improved over that of a generation ago.

A More attention is given to differences

B Instruction is directed toward broader goals.

C Instructional materials have been improved.

D Teachers meet higher professional standards of preparation.

II In the main, there are two approaches to systematic reading instruction, the basal-reader approach and guidance through experience.

III A single set of basal readers cannot satisfy the requirements of a broad program of instruction.

IV Modern reading instruction is based on the reading-to-learn approach; that is, the improvement of basic reading abilities through guidance in everyday reading situations.

A. In order to make a reading-to-learn approach, the teacher must have a thorough understanding of the achievement levels, needs, and *interests* of her pupils.

B. The reading-to-learn approach requires a teacher who knows how to guide children in establishing worthwhile goals of learning.

C. A high level of professional competency in guiding children's reading through experience is achieved *to no small degree through efficient classroom administration.*

V. A *well-planned program of differentiated reading instruction is characterized by systematic guidance in terms of individuals.* Teacher and pupil *planning* is the keystone of this approach.

VI. Modern reading instruction is characterized by continuous and systematic guidance, purposeful and satisfying pupil activities, a balanced program of intensive and extensive reading, the development of language skills and abilities in social situations, a wise use of many aids to learning, the extension and enrichment *of interests*, and critical evaluation.

VII. The systematic development, or cultivation, of an area of experience enlists learner effort through interest and purpose.

A. Through a variety of learning aids, *the pupils are oriented and prepared for the undertaking.*

B. Individual and group activities are preceded by an appraisal of what the pupils already know about the center of interest. This sharing and organization of information and interests *is in itself a fruitful learning activity.*

C. Purposes are established by co-operative *teacher and pupil statement and organization of questions and problems before individual and group responsibilities are agreed upon.* In this type of social situation, goals are clarified and the development of language skills is fostered.

D. After pupil goals have been identified, attention is directed to a consideration of sources of learning aids. This consideration gives the pupils an opportunity to learn *when* to use reading as a learning aid.

E. Special attention is given to the problem of how to locate information in available reading materials pertinent to the center of interest. At this point, the teacher must know the independent reading levels of her pupils in order to guide them in their group and individual assignments

F. Through class and group planning under teacher guidance, the pupils are prepared to locate, to select, and to evaluate information pertinent to assigned questions or problems.

G. As information is collected and other pertinent projects are completed, the pupils meet in groups or with the class *as a whole to appraise the results in terms of the original goals* (i.e., the questions or problems). At this time additional *questions and problems are stated and evaluated.*

H. During the development of a unit of activity, guidance is given in organization of information of presentation to the class or group. Consideration is given to outlines, summaries, graphs, charts, dramatizations, arts and crafts projects, special programs, and the like.

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The breadth of meaning which attaches to important words in any given context determines the difficulty which pupils encounter in understanding what they have read.
GRAY AND HOLMES (113, p. 79)

Interest in Phonics

In parent-teacher meetings on reading, one of the first questions is: "What about phonics?" Variations of this question run like these:

"Aren't phonetics important?"

"Why don't they teach phonics today?"

"Does a child in school learn to read by sight or by sound?"

"Why don't they put words together by sounding?"

"Why don't they teach children to sound out words?"

"Aren't sounds a help?"

To teach or not to teach children to sound out words has become a red hot question when parents get together. For the most part, they assume that children no longer learn to sound out words in all schools and in all classrooms of today. Moreover, they take it for granted that the authors of school readers have given up the teaching of phonics.

In 1934, the writer had more than 3,000 teachers in the United States list their questions about how to teach children to read. At that time about one out of four questions was about phonics. Twenty years later the writer again asked teachers to list their questions. This time more than two out of three questions were on the topic of "What to do about phonics?"

In short, teachers as well as parents want to know what to do about "phonics

in learning to read." There is more interest in phonics today than there was a generation or two ago.

Parents, teachers, and employers complain about poor reading and spelling. They know that something is wrong but they are not too sure of what the problem really is. So it is easy to make the problem simple by pointing to only one or two possible causes an inability to sound out words or to say the ABC's. Unfortunately, however, the problem usually is not this simple. Therefore, phonics is not a cure-all, or panacea, for all reading ills.

Any reasonable parent, teacher, or businessman knows that all reading ills cannot have *one* cause. For that reason, they know that the inability to sound out words may be only one of *many* causes of reading difficulties.

THREE ESSENTIALS

There are three essentials, or firsts, in basic reading instruction. (1) the development of permanent and worthwhile *interests* in reading; (2) the development of independence and versatility in the use of *phonics* and related word-perception skills; (3) the development of specific abilities needed for *thinking* in reading situations. *Guidance in the development of these activities, skills, and abilities begins in the kindergarten or first grade and continues as long as the individual is in school.* These three firsts of reading instruction are defi-

nitely both indispensable and inseparable

Should Phonics Be Taught?

A good reader (1) brings an interest to what he reads, (2) is skilled in the identification of words, and (3) knows how to think when he reads. Without interest, he can be led to books but he won't read them If he cannot identify words, he cannot understand what he reads and, therefore, loses interest If he has not learned how to think when he reads, he is only a word caller and can take no interest in reading These three "firsts" must be considered in any discussion of phonics

Any sensible parent, teacher, or reading specialist knows that a good reader uses *phonics and other word identification* skills These skills are the spokes in one of the wheels of the reading tricycle—the other two wheels being interest and the ability to think

For the beginner all written, or printed, *words are new They are in his speaking* vocabulary but he must learn to tell

one group of wiggly lines from another. He must learn how to identify a new word quickly and easily. And he must learn how to recognize the word the next time he sees it. To identify new words and to recognize old ones, he uses a number of skills including phonics.

It would be silly to leave a child to shift for himself in learning phonics and other word identification skills It would be equally absurd to suggest that phonics is the only set of skills needed by a good reader

Should children be taught how to use phonic skills? The answer is *Yes!* So far as the writer is concerned this is not a topic for debate The basic questions are When should phonics be taught? *How should phonics be taught?*

INDEPENDENCE IN READING

Pupils learn to use phonic skills automatically so they can attend to ideas rather than words These skills include·
1 Analyzing the parts of a word form;
e g, *at* in *train*, *ment* in *experiment*

SOLVING PROBLEMS ABOUT AUSTRALIA

Clark M Frazier, Bernice Bryan   *Cheney, Wash*

2. Blending the parts into a whole word that makes sense in the sentence

The analysis of words into their sounds, or phonetic elements, is only one way to become independent in word identification. Moreover, a child may become an expert in sounding out words but he may be a non-reader, or a poor reader, or a very good reader. Whether or not he becomes independent in *reading*, depends only in part upon his phonic skills. When the chips are down, an independent reader not only knows how to pronounce words but also how to adjust his rate of reading to his purpose and how to evaluate the ideas of the author.

After the topic of phonics has been explored to the fullest, there is much more to be learned about other ways of identifying words. *And there is much more to be learned about reading. It is the height of folly to expect anyone to become an expert reader by merely "unlocking words"*

Many parents and some teachers are good game for the sharp hunter who has a set of phonics books to sell These salesmen make the most of a fallacy in thinking. They point out that the child can't read and they imply that the cause is a lack of phonic ability Of course, anyone who can't read also can't identify words. In fact, some people can't remember a word after they have once identified it. And so the salesman sells a set of phonics books that "will give the child independence."

The fallacy, of course, is that the inability to identify words may be only a symptom and not a cause of the child's difficulty. However, the big fallacy is that phonics will make independent readers of all children.

So far as we know, *the only way to immunize parents against these superstitions about phonics is to help them to understand child development and the reading process. It is always tempting for a layman to assume one cause of epilepsy, common colds, economic ills, or spelling or reading disabilities*

Vocabulary Burden of Basal Readers

Pupil's Needs, the Proper Guide. There has been a very definite trend toward the reduction of the vocabulary load in basal readers. In so far as vocabulary reduction contributes to a gradual induction of the pupil into reading activities, it is desirable. In highly regimented schools, vocabulary reduction tends to lower the number of pupil failures in the first grade. Relatively few children could master the five-hundred-word vocabulary of the first-grade reading materials published in the early 1930's By lowering the adult-determined requirements, more children had a chance to succeed. However, this is not the way to solve the problem. Differences in readiness for systematic instruction in reading and differences in rate of progress should be recognized. By reducing the vocabulary load for *all* children in the first grade, some children are denied the opportunity to progress rapidly unless a rich collateral reading program is provided. Furthermore, a very substantial percentage of children cannot achieve in a first-grade reading program, even with a basic vocabulary reduced to three hundred and thirty different words.

Increased Burden in Primary Grades. There also has been a trend toward "enriching" the reading program in the primary grades through the use of basal textbooks in science, social science, and art. Number-story books have been published in lieu of the old-time arithmetic books. The use of these books to complement the basal-reading series has actually *increased* the reading burden in the primary grades, probably with less control over the vocabulary. Until teachers are prepared to assume the responsibility for systematic guidance in all types of reading situations, this trend to "enrich" the reading program in the primary grades will lead in one direction: more trouble.

Surveys by Laymen. It is most difficult

to view any system objectively because most of us are within the system Very few, if any, school surveys have been made by competent laymen. Very few highly successful lay leaders and businessmen with whom the writer has talked expect all children to be alike at a given grade level. Yet many summer session students with long years of "experience" see only likenesses among pupils For example, the writer has found that business executives would expect to find fifth-grade children ranging in reading ability from "first-grade level to high-school level"; fifth-grade teachers usually expect to find children falling into fourth- and fifth-grade level categories. It so happens that the businessmen's guesses are nearer the truth The writer has practiced the belief that educators should invite laymen to make informal appraisals of school activities Quite often these laymen—unconfused by courses in philosophy of education, history of education, methodology, etc —suggest first of all more attention to individual differences.

Role of the Teacher The key to this reading situation is the teacher If the teacher has a "map" in her nervous system that corresponds to the "territory" in the classroom, she will not expect all children to be "at grade level" Trouble arises when the teacher's map does not correspond to the territory In a democracy, it is highly important for teachers and parents to collaborate in the preparation of their "maps"

To summarize, the reduction of vocabulary load in basal readers and the "enrichment" of the reading program by means of complementary books does not solve the "reading problem" in public *schools In fact, the one trend may be* running counter to the other trend The solution, instead, lies in the uses made of these materials The *teacher* must survey the territory—i e., learn about the child's needs, interests, capacities, aptitudes—before making a map of the territory each pupil is to cover For example, one

fifth-grade child may not be able to "sit up alone" in reading; another may be able "to crawl alone"; another may be able "to run"; and another may be able "to climb mountain peaks."

Word Recognition

CLUES TO WORD IDENTIFICATION

When a child is confronted with a "new" reading word which blocks his attempts at grasping the meaning of the unit, he may react in a variety of ways. First, he may ask the teacher for help. Second, he may get a clue to the new word from the accompanying illustration Third, he may *identify* the word as a known element in some childhood expression of language rhythm. Fourth, he may "sense" the word from the context or from the meaning derived from the rest of the sentence Fifth, he may resort to comparing or contrasting the word form with other familiar words. Sixth, he may analyze the word into known elements (by application of phonic principles) or parts (by application of structural analysis principles) in order to get a clue to the word form Seventh, he may consult a standard dictionary. To make effective use of the dictionary, he must apply all previous language learnings. A gradual development of versatility in the use of a number of clues is recognized as highly desirable, but the habit of checking the correctness of the identification by the meaning test is essential.

PURPOSE OF WORD-RECOGNITION ACTIVITIES

The chief purpose of word-perception, or recognition, activities is to provide *systematic* instruction for the *development* of independence in pronouncing and in determining the meaning of words Since pronunciation of words is only one factor in efficient and rhythmical reading, there is a need for making the learner versatile in the use of a variety of clues to word identification.

In view of this, there should be a fine balance of experiences that emphasize both the "mechanics" and meanings of word forms. The "mechanical" analysis of word forms is always made in meaningful reading situations

Activities in which experience (or context), picture, and language-rhythm clues are emphasized contribute to meaning identification and definitive thinking, while configuration clues, phonetic analysis, and structural analysis assist the learner in the mechanics of pronunciation. In using the dictionary effectively, the child, of course, arrives at both pronunciation and meaning. In general, word-analysis activities are used to establish independent habits of quick and accurate word recognition. Among the specific values indicated by reading specialists, the following may be briefly enumerated:

I. To acquire a basic stock of sight words
  A. To learn to use context clues
  B. To learn to use configuration clues
  C. To learn to use picture clues
  D. To learn to use language-rhythm clues
II. To learn to use contextual aids at high levels of efficiency
III. To learn to recognize and pronounce word beginnings
IV. To learn to recognize and pronounce word endings
V. To work out new words from known parts
VI. To recognize large elements of longer words
VII. To recognize small familiar words in large words
VIII. To promote habits of correct pronunciation

INSTRUCTIONAL JOBS

The major instructional jobs in the vocabulary development facet of language instruction are outlined as follows:

Auditory Discrimination. To develop the ability to observe likenesses and differences in the *sounds* of words (See chapter on Visual and Auditory Discrimination).

1. To note likenesses and differences in the initial sounds of words
2. To note likenesses and differences in the final sounds of words
3. To detect rhyming elements in words

Visual Discrimination. To develop the ability to observe likenesses and differences in the *forms* of words (See chapter on Auditory and Visual Discrimination).

1. To note differences in the general configuration of words
2. To note characteristic details of words as means of discrimination

Language-Experience Relationships. To develop the basic notion that language *represents experience*

1 That words represent things in experience
2. That words are abstractions of experience (For example, the word *dog* does not tell all about a particular dog)
3 That words have value in terms of their contextual settings; that is, to sense the shifts in meaning brought about by adjacent words (For example, *dog* may stand for an animal or for a part of a cogwheel)

Directional Sense. To develop habits of left-to-right progression in word attack

Context Clues To develop skills, abilities, and attitudes in the use of context, or experience, clues for word recognition

1. A sentence sense and a general appreciation for language structure
2. Habits of anticipating meaning as a means of initial-word recognition
3. The habit of verifying conclusions reached through other word-recognition techniques by the criterion, "Does this make sense?" (For example, homographs such as *read*, *content*, and *rebel* cannot be verified by phonetic analysis or structural analysis techniques exclusively; the way the words are used dictates the pronunciation.)
4. The habit of examining the context for sentences, and, if necessary, the para-

graph or whole selection, for clues to *recognition and meaning*

5. The ability to use typographical aids to meaning, such as quotation marks, italics, boldface type, parentheses, footnotes

6. The ability to use language-structure aids to meaning, such as appositive phrases and clauses, nonrestrictive phrases and clauses, interpolated phrases and clauses

7 The ability to use word elements as aids to recognition and meaning, such as roots, prefixes, and suffixes

8 The ability to interpret figures of speech, such as the metaphor and simile

9 The ability to recognize the interrelatedness of context clues and versatility in using them

Picture Clues. To develop the ability to use pictorial representations as aids to word recognition and meaning

1 To use picture clues.

2. To use diagrams, charts, graphs, and maps

Language-Rhythm Clues To develop the ability to anticipate meaning through a feeling for the rhythm of language

1 A knowledge and an interest in idiomatic phrasing

2 A feeling for childhood expressions of language rhythm

3 An appreciation for the general rhythm of well-expressed ideas

Configuration Clues To develop the ability to use configuration clues as aids to word recognition

1. To discriminate between the forms—patterns or general configuration—of words.

2 To note similarities and differences between the general forms of known and unknown words

Striking Characteristics To develop the ability to note those internal characteristics of a word which differentiate it from other words

Phonetic Analysis. To develop the ability to analyze words in terms of their sound elements

1. Familiarity with the speech sounds

2. Auditory discrimination

3 Visual-auditory perception of initial and final consonants, consonant blends, consonant digraphs, "short" vowels, "long" vowels, and diphthongs

4 Discrimination between "short" and "long" vowels

5 Recognition of silent letters in words

6 Recognition of the fact that different letters may represent the same sound and that the same letter may represent more than one sound

7 Ability to apply phonetics to the syllables of words

8 Recognition of word variants

9. Ability to interpret diacritical marks

Structural Analysis To develop the ability to analyze words in terms of their structural elements

1. To identify the syllabic units of words

2 To identify words within larger words, including compounds

3 To note basic words in compound words

4 To note basic words in derivatives and variant word forms

5 To divide words into syllables as an aid to pronunciation

6 To recognize common prefixes and suffixes

7 To divide words at the end of a line in writing activities

8 To interpret accent marks

9 To recognize syllables used as prefixes and suffixes

10 To identify root words

11 To identify common prefixes and suffixes

Use of Glossary To develop the ability to use the glossary as an aid to word recognition and to meaning

1 The habit of using a glossary

2 An understanding of the alphabetical arrangement and variant meanings in a glossary

3 Selection of an appropriate meaning

Dictionary Usage. To develop the ability to use the dictionary as an aid to pronunciation and to the getting of meaning; to promote the dictionary habit

1. To recognize letters and to remember their alphabetical sequence
2. To interpret the symbols in a dictionary, such as accent marks, abbreviations for parts of speech, and diacritical markings
3. To be interested in the types of information found in the dictionary
4. To use guide words with facility
5. To use key words as aids to interpretation of respellings
6 To identify preferred pronunciations
7. To select appropriate meanings for given reading situations
8. To be aware of the values and limitations of a dictionary

In general, the problem of word recognition may be summed up this way: ability in word recognition is the product of visual analysis and reading for meaning. Visual analysis techniques and the attitude of reading for meaning appear to be essential to efficient reading. In the process of arriving at this level of achievement, some children must have visual associations re-enforced by auditory, kinaesthetic, and tactile (touch) associations. However, the efficient reader has achieved considerable skill and ability in visual analysis and in dealing with meanings, regardless of the route he has traveled.

BASIC CONSIDERATIONS

When vocabulary development is considered in relationship to the total development of the child, and especially to the development of efficient reading and study, several factors merit attention. These include the goals of instruction, providing instruction on *how* to recognize words *when* the *need* arises, variability in levels of achievement, the use of special aptitudes and abilities, the interrelatedness of the facets of language, providing systematic instruction, capitalizing on learner purposes, providing opportunities for practicing desirable behavior, emphasizing experience rather than memorization.

Goals. The child must acquire control over word-perception techniques in order to develop fluency, versatility, and independence.

Needs. Guidance in word recognition is required only *when* a *need* arises That is to say, the child must be ready for help. Drill before there is a need is purposeless. Without purpose, learning is at a low ebb, indeed.

A first corollary to this assumption is: If the guidance is given after the crisis (or strong felt need) has passed, the *cause* is lost. When there is no need, drill is purposeless. Purpose is the foundation of interest; interest governs learner energy

A second corollary may be stated this way: Give only sufficient guidance to satisfy a given need. When a need has been met, there is no justification for additional drill If the skills and abilities involved are really important, situations in which they will be used will arise frequently in subsequent activities. The child gradually achieves control over the reading process, of which word recognition is only one part.

Variations in Levels of Achievement. As first-grade entrants vary widely in readiness for reading so do children at subsequent grade levels vary widely in reading achievement. As each class progresses through the elementary school the range of reading abilities is increased. For example, at the fifth-grade level children may vary in reading achievement from "preprimer level" to twelfth-grade level. This fact has practical implications for all teachers. Reading vocabulary is developed as one phase of the total reading process. Hence, teachers at all elementary-school levels must have basic understanding of the sequence in which reading abilities unfold. Vocabulary development is an integral part of this sequence; therefore, a wide range in

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levels and in the specificity of vocabulary needs exists at any one grade level

Probably one of the frequently violated principles is that of initiating the pupil into learning activities which are challenging to him A swimming instructor does not initiate the beginner by placing him in a situation where he must swim one hundred yards or sink Such an unpleasant sink-or-swim situation for most individuals would probably develop a tenseness, fear of water, and a feeling of helplessness which would negate future motor, intellectual, or emotional learning essential to the development of swimming ability This procedure on the part of the coach would be gross misinterpretation of the statement that learning flourishes when there is a "felt need" It is true that there would be learning, but what kind? No, the wise instructor doesn't

"challenge" the learner in that manner unless he wants a first-class remedial case on his hands. In like manner, the teacher—interested in preventing reading difficulties and in promoting maximum general development—at all grade levels is a first-hand dealer in developing desirable readiness for progressively challenging reading activities

The grade classification of children—furthered by a mountain of literature on such items as a second-grade book, a third-grade teacher, promotion to fourth grade, and standard test *averages*—has done much to circumscribe professional and lay thinking and to obscure the obvious fact that education increases individual differences. For example, the teacher of a given "so-called third grade" should be more concerned with *deviations* from the *average*, for only about

thirty to fifty per cent of the children in that grade can be challenged by third-grade readers. For a number of reasons, this teacher cannot become a third-grade specialist, because some of her charges with "preprimer" and "primer" reading ability will be frustrated in their efforts to read third-grade materials while others will profit more from materials prepared for "average" fourth- or fifth-grade pupils. This means that a number of pupils will not be in a position to profit from activities involving word analysis because they have not developed sufficient initial ability in reading and that some of the other pupils will benefit from activities involving the use of the dictionary, glossaries, and the like. In brief, beginning instruction with the learner's level of achievement dictates the teaching of children rather than of grades.

Modalities of Learning. Children differ in the uses they are able to make of their mental processes for learning words. Many children who are generally ready for initial reading instruction exhibit good retention of reading vocabulary regardless of the method. For example, children have learned to read with a visual-auditory method, such as an initial blend or a final blend of phonic method. And again, many children have learned to read with a visual method, such as a story or sentence method. On the other hand, the writer sees each week those children with normal or superior intelligence who have not learned by traditional methods employed in public schools. These same children are taught to read in the Reading Clinic Laboratory School, but the method of instruction is based on the type of case identified by means of a careful analysis of the language problem. Some of these children are taught by a method in which visual and auditory imagery is re-enforced by kinaesthetic imagery. Other children must have these types of imagery re-enforced by a sense of "feel," and so tracing the word with the finger is added

to the procedure. Readiness, therefore, is not determined until the teacher takes into consideration the child's mental functions. If he appears to be deficient in auditory, visual, or kinaesthetic associative learning skills, then the instructional procedures must be differentiated to meet his needs.

Interrelationship of the Language Arts. In guiding the child's development of reading vocabulary, the teacher should keep in mind the sequence of language development. The child cannot be taught to read sentences until he can communicate orally by means of sentences. Usually, writing skills and abilities are developed after the child has achieved a substantial level of reading efficiency. Maximum language development occurs when the speaking, reading, and writing skills are rolled into one large "snowball" with rich and varied experience carefully blended with the language. This "snowball" becomes larger and larger as it is rolled along and picks up more and more language-experience relationships from the surface of needs.

When the child reads, he is reconstructing the facts behind the symbols. When he writes or speaks from experience, he is making mental constructs. In a psychological sense, speaking, reading, and writing cannot be compartmentalized. Word recognition, for example, is developed in traditional schools through activities in speech, reading, elementary-school English, and spelling plus literature and the "content subjects." The point of this paragraph is that reading vocabulary grows out of experiences with mental constructs, or concepts; speaking, reading, and writing vocabularies overlap and are interdependent.

There are several things the teacher can do in order to utilize what is known about the interrelatedness of the language arts. First, the child's control over meaning should be insured. Other things being equal, vocabulary development is paced by experience. Second, a reasonable degree of oral-language facil-

ity will be developed before systematic guidance in reading is initiated Third, context clues will be emphasized during initial reading and all subsequent activities. Fourth, a substantial sight vocabulary will be developed in contextual situations before attention is directed to the mechanical analysis of word forms, such as is done in phonetic analysis Fifth, required phonetic-analysis skills will be achieved and some systematic guidance in structural analysis will be initiated before much work is done in writing activities where spelling ability is highly important. Sixth, a substantial reading vocabulary (approximately first-reader level) will be developed before systematic instruction in spelling is initiated Seventh, in the beginning, at least, attention will be directed to punctuation, sentence structure, and related factors in reading situations before their uses will be taught in writing situations In the development of experience records, these items are translated from speech into reading situations Vocabulary development will be facilitated to the degree that the interrelatedness of the language arts is recognized in practice

Systematic Learning It is probably a truism to state that reading habits, like other habits, are developed by systematic practice The formal teacher who regiments the stimuli and responses of her pupils violates the spirit of this principle, fails to challenge her pupils with worthwhile activities, discards the fruits of research and experience, and does not make maximum learner development possible For example, the days are rapidly becoming history when the teacher stands before a class flashing cards containing the initial consonants and requiring distorted choral responses In addition to incorrect and worthless learnings accruing from such a situation, further exploitation of the learners takes place because the activity is put on a mass basis without reference to individual needs Learning is economic and fruitful to the degree that systematic and orderly development occurs for each individual.

From the point of view of developing a *reading vocabulary by means of* carefully graded materials, systematic learning has another equally important connotation There will be a need for the intelligent use of basal-reading materials as long as the time allotment for teacher preparation remains at subprofessional levels, as long as the great mass of children are to be forced into typical reading programs at four and one-half and five years of age, and until the elementary program has been enriched with a wide variety of offerings which have both immediate and future values. Unfortunately, however, there is some evidence that the misuse of basal-reading materials has caused some to venture into uncharted areas where basal materials are regarded as memorials to pedagogical errors. As a result, in some instances children are being exploited by having to read ten preprimers, containing about four hundred different words, before they are introduced to the so-called primer level When the length and structure of sentence and other factors are evaluated, preprimer material may be easier than primer material, but the excessive vocabulary burden resulting from using preprimers in a haphazard sequence offsets any gains made. Arriving at the systematic development of a reading vocabulary through the use of basal materials does not preclude extensive reading of other basal *materials* at expedient times.

Purpose It is well known that the purpose of the reading governs rate, depth, and accuracy of comprehension. Purpose is forfeited when expected accomplishments are kept from the learners as secrets, when the rapid reader is told, "If you've read your lesson once, read it again," and when words which will not be encountered in the immediate context are drilled on in isolation. In short, purpose controls the efficiency of learning and contributes mightily to retention,

or remembrance. Purposeful activities become unidirectional in the sense that aimless word calling, overemphasis on the mechanics of reading, and such items are forestalled. Attempts at purposeful reading are frustrated when the learner is bogged down with an excessive vocabulary burden, an inadequate stock of sight words, and a lack of word-perception ability. Likewise, purpose is defaulted when the pupil is subjected to meaningless isolated word-recognition activities which are viewed by the teacher as ends rather than as means to ends. It follows then that the development of a useful reading vocabulary and of techniques for the identification of words can be achieved by efficient learning processes to the degree that the activities contribute to rhythmical and efficient reading.

Practice. The principle, which emphasizes the need for practicing desirable behavior, assumes added meaning when word-recognition activities are evaluated. Pupils become expert at word calling in situations requiring extended drill on words in isolation and demanding oral reading without previous preparation. In the first situation, practice on word calling perfects that ability while in the second situation the pupil is given little or no opportunity to practice essential study skills before he is required to interpret for others the meaning of the material. And again, pupils subjected to situations which require the voicing of certain isolated consonants acquire auditory imagery that *interferes* with efficient learning because they are taught distorted sounds. The classic examples, often quoted, are the pronouncing of *buh-at* for *bat*, *cah-at* for *cat*, and the like. In brief, practicing desirable behavior facilitates useful learning.

Experiencing versus Memorizing. Experiencing is usually emotionally toned in a positive direction whereas memorization usually connotes the acquisition of mind content that is devoid of desirable associations with the learner's background

and that may be emotionally toned in a negative direction. It is for this reason that the vocabulary of initial reading materials is based largely on the most common words found in the speaking vocabularies of children. It is also for this reason that teacher and pupils should share worth-while experiences pertinent to the new unit of reading and should set up motives before embarking upon their new learning enterprise and before the first silent reading And again, it is for this reason that following the introduction of a new unit of reading material, the pupil is given an opportunity for study and silent reading before oral reading Here the pupil is given an opportunity to identify his specific word-recognition and comprehension difficulties and to practice skills under the *teacher's direction for the development of learner independence* With skillful guidance of the pupil by the teacher, practice which involves purposeful experiencing contributes to efficient learning and to the retention of that learning. Fruitful reading activities require a constant interplay between the reader's fund of previous experiences pertinent to the center of interest in question and the new content. Learning to skate cannot be achieved without previously having acquired the motor skill and judgment required for walking; likewise thoughtful reading requires the bringing into play of personal experience, both general and specialized. In this way, the reader supplements his reading from his own mind content.

Systematic Sequences

Following is an outline of the word-recognition program in the elementary school. After each type of aid, a notation is made in parentheses of the "level" at which it is introduced. As a result of vocabulary reduction, the trend is toward postponing the introduction of these skills. Furthermore, the point at which a given skill is introduced depends

upon the vocabulary load and the nature of the vocabulary. For example, the greater the number of different words accumulated at a given grade level, the sooner the skills are introduced. And a given phonogram is not introduced until a substantial number of words containing it has been met

Word-Recognition Program

I Context clues (Preprimer)

II Picture clues (Preprimer)

III Language-rhythm clues (Preprimer)

IV Configuration clues (Preprimer)

V Phonetic analysis (Preprimer or Primer)

  A Consonants
    1 Single consonants (Preprimer or Primer)
      a Initial consonants (Preprimer or Primer)
      b Final consonants (Grade I)
    2 Consonant blends (Grade I or II)
    3 Consonant digraphs
      a Silent consonants (Grade II or III)
  B Vowels
    1 Short vowels (Grade I or II)
    2 Long vowels (Grade I or II)
      a Final *e* (Grade I or II)
      b Vowel digraphs (Grade II)
    3 Diphthongs (Grade II)
  C Consonant-vowel blends analogous elements (Grade I or II)
  D Vowel-consonant blends analogous elements (Grade I or II)
    1 Effect of *r* on preceding vowel (Grade II)
    2 Effect of *l* or *w* on preceding *a* (Grade II)
  E Syllabication
    1 Perception of syllables (Grade II or III)
    2 See structural analysis

VI Structural analysis

  A Syllabication and accent (Grade III)
    1 Meaning of syllable (Grade II or III)
    2 Syllable phonics (Grade II or III)
      a Closed and open syllables (Grade III)
      b Final *e* in last syllable (Grade III)

    3 Principles
      a Single consonant (Grade III)
      b Double consonants (Grade III)
      c Consonant before *le* (Grade III)
    4 Accent (Grade III or IV)
  B Compound words (Grade II)
    1 Solid compounds (Grade II)
    2 Hyphenated compounds (Grade III)
  C Inflectional forms, or word variants (Primer or Grade I)
    1 Verb forms (Grade I)
      a Formed by adding *ed* and *ing* (Grade I)
    2 Noun forms (Grade I or Primer)
      a Plurals formed by adding *s* (Primer or Grade I)
      b Plurals formed by changing *y* to *i* and adding *es* (Grade II)
    3 Adjective forms
      a Comparatives by adding *er* (Grade II)
      b Superlatives by adding *est* (Grade II)
  D Derivatives (Grade III)
    1 Roots and stems (Grade III)
    2 Suffixes
      a Suffix *y* (Grade II)
      b Suffix *er* (Grade II)
    3 Prefixes
      a Prefix *un, dis, re* (Grade II or III)

VII Glossary and dictionary usage

  A Locating entries (Grade II or III)
    1 Alphabetical sequence (Grade II)
    2 Using guide words (Grade IV)
  B Syllabication in dictionary (Grade IV)
  C Accent (Grade IV)
  D Phonetic respelling (Grade IV)
    1 Representation of a sound by different letters (Grade IV)
    2 Key symbols for consonant sounds (Grade IV)
  E Diacritical marks (Grade IV)
    1 Recognition of diacritical marks (Grade IV)
    2 Using pronunciation key (Grade IV)
  F Selecting appropriate meanings (Grade IV)
  G Abbreviations

Instruction Dictated by Pupil Needs. It has been indicated elsewhere that pupil needs rather than the calendar should dictate the nature of systematic instruction in word perception. This means that the grade placement of items for the purpose of systematic learner development, of necessity, will be interpreted in terms of the various levels of attainment by individuals within the class. For example, the teacher can expect that beginning second-grade pupils may vary in their needs, perhaps from preparatory activities to dictionary usage. Furthermore, it should be emphasized that systematic instruction for the development of efficient reading habits involves much more than word perception. In view of this, the following sequence of types of word perceptional activities at various levels is offered largely as a description of extant plans.

Preparatory Period. Recently there have been published a number of preparatory books which are to be used before the introduction of the preprimer. Through the use of these preparatory materials, it is claimed that the following learnings may accrue:

I. Adjustment to group
II. Desirable attitudes toward books
  A. Strong desire to read
  B. Curiosity about contents of books
III. Fund of meaningful concepts
IV. Facility of language expression
  A. Acquisition of an oral vocabulary adequate for initial reading instruction
  B. Development of correct enunciation and pronunciation
  C. Ability to express thoughts in complete units, such as sentences
V. Improvement in habits of thinking
  A. Ability to carry sequential story development in mind
  B. Ability to organize ideas
  C. Ability to do inferential thinking
VI. Control over motor aspects of reading (It is suggested that activities in connection with the use of the materials permit the teacher to identify learner

deficiencies in this respect which may be corrected.)
  A. Development of left-to-right eye progression, especially in viewing pictures
  B. Development of accurate return sweeps of the eyes from the end of one line to the beginning of the next
  C. Development of eye-hand co-ordination
VII. Careful observation of differences in both total configurations and details
  A. Form discrimination
    1. Matching forms
    2. Training of visual memory
  B. Noting details
    1. Noting differences in forms
    2. Ascenders and descenders of letters and other forms
VIII. Care of books

Justification of Preparatory Material. Although the authors of the above-mentioned materials have not reported researches to validate their claims, it does appear reasonable to assume that the use of such materials might be justified in the typical first-grade situation. Some of the justifications may be stated as follows:

1. First-Grade Failures. The high percentage of failures in first-grade reading indicates a need for identification of children who are not ready for reading; differentiation of instruction in terms of pupil needs, abilities, and aptitudes; and a specific and pertinent prereading program. Through the use and careful study of extant prereading materials, teachers may evaluate their programs and receive suggestions for other informal and systematic procedures. At least, available prereading materials provide a substitute for premature instruction.

2. Mental Immaturity. In terms of such meager data available, there appear to be a significant number of first-grade (six-year-old) children who lack the mental maturity to profit from typical first-grade instruction. A well-planned prereading program encompassing a wide range of activities should contribute to mental readiness for reading.

3 *Emotional Immaturity.* An equally important, but frequently neglected, requirement for successful achievement in reading is emotional maturity More nearly adequate preparation of the young learner for the intricate and highly complex psychophysiological process of reading should give the beginner greater certainty, an attitude of approach, and better social adjustment. Real appreciation of the contents of books—a significant aspect of emotional readiness for reading—of course, must be developed during the more informal times of storytelling, reading by the teacher, and group discussions.

4 *Physical Readiness* The use of extant preparatory materials probably contributes little to physical preparation for reading For example, development of visual acuity and correction of physiological interferences (sometimes reflected by marked head movements during reading) require the attention of a vision specialist. Furthermore, the use of prereading materials under the supervision of the typical teacher cannot be used to detect anything but gross physical difficulties; the more crucial handicaps would probably be overlooked If the reaction of the beginner to the prereading materials could be observed by a specialist in vision or by a teacher trained to detect such difficulties, some defects might be identified Fortunately, more certain materials and procedures are available for *detecting* visual and auditory handicaps Prereading materials probably have a place in detecting excessive head movements, faulty rhythm patterns, and defective or immature visual perception

Preprimer, or Initial Reading, Level. Before initiating the various groups of a class into "book" reading, the teacher should have previously ascertained pupil readiness for this level This may have been achieved by means of reading-readiness tests, by observing pupil responses during daily activities, by noting pupil responses to systematically prepared prereading

materials, or by a combination of these procedures. No one can expect all the pupils in the typical first grade, which is characterized by a wide range of pupil capacities and abilities, to be ready for "book" reading at the same time. During this initial stage of "book" reading, an even wider variation in pupil needs will become increasingly evident.

A survey of teacher's manuals for recent systems of basal-reading materials indicates fairly universal agreement upon the following types of word-perception activities at the preprimer level:

I Development of a beginning reading vocabulary of about 50 words, needed by six-year-olds (In learning these words, the pupils not only identify the initial consonant phonograms and rhyming phonograms—vowels and vowel-consonants—but also blend these phonograms of known words to make known words At the same time they learn the names of the small and capital letters in the words.)

II Association of word forms with useful meanings

  A Recognizing words by means of context, or experience, clues

  B Recognizing words by means of picture clues

III Development of accurate visual perception and associations (Noting similarities and differences between word forms)

  A Total configuration

  B Distinguishing details

IV Development of accurate auditory perception and associations

  A Identification of pupil names and selected words labalized by the teacher

  B Noting similarities of selected sounds in rhyming words

  C Identifying words that have the same initial consonant sounds

V. Development of accurate kinaesthetic perception and associations

  A Learning accurate formation of speech sounds

  B Establishing the habit of silent study before oral interpretation

Primer Level. Not all the pupils who were initiated into preprimer level materials will be in a position to proceed to the primer level at the same time. Some may benefit from slower progress through the preprimer and from continued reading in selected second, third, and fourth preprimers, while others may proceed with the primer, using selected preprimer-level material for independent reading. Since the successful pupils may have a reading vocabulary of only about forty to seventy-five words, they will not have had an opportunity to achieve very much independence in word perception. Furthermore, it is not advisable at this point to interrupt the process of thought-getting by calling attention to the mechanics of word forms. After control is gained over reading for meaning, interpretation of punctuation, left-to-right eye progression, return sweeps, and a working sight vocabulary, some of the pupils may achieve greater independence and power through word analysis.

Upon completion of the primer, the pupils have a basic reading vocabulary of about 150 words. In learning to *know* these words—their uses and printed forms—the pupils use these additional skills:

1. Hearing and seeing the first consonants of words, e g , *(sh)e, (th)ank*

2 Hearing and seeing last consonants of words, e g , *do(ll), u(p), bu(t), o(n), u(s), ha(s)*

3 Hearing and seeing rhyming phonograms e g , *pl(ay), d(ay), th(ere), u h(ere)*

4 Hearing and seeing the ending *s* on words. e g , *duck(s), train(s), help(s), like(s)*

5 Blending the first consonants in printed words. e g , the *t* of *too* and the *r* of *ran* to make the *tr* of *tree*

6 Blending the first consonant of a known word with the last part of a known word to make another known or unknown word. e g , the *tr* of *train* with the *ee* of *see* to make *tree*, *n* of *not* with *o* of *go* to make *no*

J. M. Payne

READING TAKES ON NEW MEANING.

Columbia, S.C.

In addition to learning the above phonic skills, the pupils become quite good in the use of picture clues They also learn certain context clues to a word, for example, they learn to know *were* from its correct use in this sentence "All the boys and girls *were* there " Picture clues and context clues are used to make sure that the word identified by means of phonic skills fits the meaning of the sentence

First-Reader Level. As the various groups progress systematically, they will encounter a more rapid introduction of "new" words, a growing list of "old" words, longer sentences, more complicated sentence structure, and materials in which there are fewer helps in phrasing In view of this, it is apparent that a substantial number of pupils will require systematic training in word identification and classification if they are to maintain efficient reading habits and to reach higher levels of achievement. Even when the curriculum is enriched by no other materials, the pupil will have encountered three hundred to five hundred different words in the typical basal-reading materials for the first grade, depending upon the series used Attempts at enrichment with science and social studies materials may mean that some pupils will acquire abilities that permit them to read efficiently and rhythmically, but experience has shown that a substantial number of pupils are bogged down and become retarded readers In addition to controlling the sometimes overemphasized vocabulary of initial reading materials, there is a need for helping the average pupil to acquire independence in word and meaning identification

The typical program for the development of word-perception techniques at the first-reader level includes.

I. Recognition of most of the initial consonant sounds and a few of the final consonant sounds
   A. Single initial consonants, such as *b*, *h*, *p*, *t*

B. Consonant digraphs (initial), such as *wh*, *th*
C Single final consonants, such as *d*, *l*, *i*, *m*, *n*

(Note: Exercises and activities which focus attention on initial consonant sounds are usually looked upon as the first work in phonic training—compound consonants usually are introduced after initial single consonants)

II. Recognition of one-syllable words containing the short vowel sounds
III Recognition of words with varied endings, such as *ed*, *ing*
IV Sensitivity to *s* forms of plural words
V Recognition of words containing analogous elements such as *ight*, *old*, *ow*
VI Recognition of words containing final *e* (Trend toward Grade II)
VII Recognition of compound words made up of two familiar words (Trend toward Grade II)

Second-Reader Level Child development probably can be represented better by a growth curve rather than in stair-step fashion In short, a pupil doesn't jump from one level to another; instead, systematic instruction in terms of pupil needs should develop a complex of readinesses which contribute to steady, progressive achievement. A given class of so-called "second-grade" children will represent a wide range of abilities and needs Not all will be challenged to maximum development by second readers, for some should be prepared for higher levels while others will distribute themselves at various points along the scale to as low as preprimer level Pupil needs as far as word perception is concerned will vary widely In other words, some curves of pupil development would indicate accelerated learning whereas others would show long, slow, and tedious progress. The teacher, then, must be an expert in guidance rather than a specialist in "second-grade" teaching

Exclusive of the general and specialized vocabularies encountered in other read-

ing materials, the pupil who has completed successfully the reading and study of the typical second reader will have some degree of control over about six hundred to one thousand different words. The number of different meanings for each of these words would probably stagger an able research worker. Furthermore, the number of polysyllabic words has increased to the point where phonetic analysis skills must be broadened to include the visual analysis of the structure of a word. Briefly, then, it appears that pupils should have acquired considerable versatility in the use of techniques for the identification of both the form and the meaning of words and phrases.

The program for the second year provides for the maintenance of previously acquired skills and abilities and for continued development of word-perception ability in terms of pupil needs. The typical program includes:

I. Alphabetical sequence of letters required in locating entries

II. Recognition of consonant blends, such as *bl*, *st*, *tr*

III. Recognition of silent consonants in consonant digraphs, such as *th*, *wh*, *ch*

IV. Recognition of short vowels in one-syllable words

V. Recognition of long vowels in final *e* words

VI. Recognition of long vowels in monosyllabic words containing vowel digraphs

VII. Recognition of common diphthongs

VIII. Recognition of word variants

  A. Plurals formed by adding *s* or *es*

  B. Nouns formed by adding *y*

  C. Adjectives formed by adding *er*, *est*, or *y*

  D. Adverbs formed by adding *ly*

  E. Root words in variants

IX. Recognition of known words in compound words composed of two familiar words

X. Recognition of contractions

Third-Reader Level. At the third-grade level, individual achievements may range from reading readiness to at least fifth-grade level. Hence, some pupils may be in the initial reading stage while others are doing independent reading at the fourth- and fifth-grade levels. This means that the low achievers may not be ready to learn how to use phonetic analysis as an aid to word recognition while the high achievers may have control over many "dictionary" skills. Children differ not only in their levels of reading achievement but also in their needs at those levels

The third-reader level program of word recognition calls for the maintenance of previously learned skills and increasing attention to the structural analysis of words leading to the effective use of the dictionary At this level, the need for a unified language-arts approach becomes increasingly clear All the language skills, abilities, and attitudes—i.e., in speaking, reading, and writing—should be nurtured in a manner that facilitates general language development. The typical program includes

I. Recognition of syllabic divisions of words

  A. Auditory perception of syllables

  B. Knowledge of meaning of syllables

  C. Visual perception of syllables

II. Application of principles of syllabication

  A. Double consonants between two vowels

  B. Single consonant between two vowels

  C. Consonant before final *le*

  D. Suffix *ed* preceded by *d* or *t*

III. Application of phonetics to syllables

  A. Closed and open syllables

  B. Final *e* in last syllable

IV. Recognition of hyphenated compounds, and use of term *hyphen*

V. Recognition of common prefixes and suffixes

VI. Interpretation of diacritical markings over "long" and "short" vowels (Trend toward Grade IV)

VII. Recognition of common contrac-

tions, and use of terms *apostrophe* and
contraction

VIII. Recognition of common abbrevia-
tions, and use of term *abbreviation*

IX Recognition of antonyms, and use of
term *opposite*

Fourth-Reader Level At the fourth-grade
level, pupil achievement may range from
preprimer to at least eighth-grade level
The range of reading abilities is increased
as the pupils *progress* through school.

As schools are now organized, the read-
ing burden has been substantially in-
creased by the time the children achieve
beginning "fourth-grade" skills and
abilities Even in the most formal of
traditional schools, the number of "read-
ing subjects" added to the curriculum is
most formidable. The number of "new"
reading words increases rapidly as the
pupil expands his activities in social sci-
ence, science, and other areas Extensive
and intensive reading activities in these
areas call for an extension and refinement
of skills in the use of contextual aids,
phonetic analysis, and structural analysis.
At this time, the pupil is introduced to
another means of achieving independence
in reading; namely, the *dictionary*

The typical word-recognition program
at the fourth-grade level includes

I. Recognition of compounds and use of
term *compound*

II. Recognition of root words

III Recognition of derivatives
   A Formed by adding prefixes
   B Formed by adding suffixes

IV. Recognition of inflectional variants
   A Possessives
   B Plural nouns
   C Verbs
   D Variants by adding *er* of agent
   E. *Variants by adding* or *or* est *of compar-
   ison*
   F. Variants by adding *ly* or *y*
   G. Use of term *singular*

V. Application of phonetics to syllables
   A. Letters, or letter combinations, rep-
   resenting same speech sounds

B Variant sounds represented by same
letter, or letter combinations
C. Diacritical marks
D. Phonetic respellings
E Key words in dictionary

VI. Recognition of function of accent
marks
   A Accent on pronunciation
   B Accent on two-syllable words
   C. Primary accent
   D Use of term *accent*

VII. Application of principles of syl-
labication: syllables commonly used as
prefixes and suffixes

VIII. Interpretation of dictionary, glos-
sary, and index information
   A Location of information
      1. Alphabetical sequence
      2. Alphabetizing by first and second
      letters
      3 Guide words
      4 Parts of dictionary
   B Pronunciation
      1 Respellings
      2 Key words
      3 Syllabication
      4 Accent
      5 Preferred pronunciation
   C Meanings and use of terms *antonym*,
   synonym, and *homonym*

IX Interpretation of graphs, charts,
maps, and other pictorial aids

Fifth- and Sixth-Reader Levels. As the
child progresses through school, the in-
structional job in word recognition be-
comes inextricably interrelated with in-
struction in the other facets of language.
After a child has achieved at least first-
reader-level reading ability, systematic
guidance is given in writing activities,
including spelling Learnings in one area
re-inforce learnings in another area For
example, the emphasis on syllabication
in spelling contributes to the develop-
ment of word-recognition skills in read-
ing, and vice versa. By the time the child
is ready for systematic language instruc-
tion at the fifth- or sixth-grade level,
every consideration should be given to
vocabulary as it is developed in reading,

"WOOLY" IS AN INTERESTING SUBJECT

writing, and speech activities. The unified language-arts approach to vocabulary development is the most effective

Beginning with the fifth-grade level of reading achievement, higher reading processes should be developed systematically. This advanced cycle of reading instruction is continued through high school and college. Vocabulary development, including word recognition, is not terminated at the fourth-grade level; instead, vocabulary competence is increased by the continued development of the primary uses of words and their derived uses. Extensive reading facilitates vocabulary development, but in this advanced cycle provision must be made for the intensive study of the higher-level reading processes. These higher-level processes are developed by means of an experience-linguistics approach in which control over the semantic aspects of language is systematically developed.

At the fifth- and sixth-grade levels, the *pupil is given further control over previously learned aids to word recognition*. These learnings free him for the consideration of other linguistic factors. The typical word-recognition program at this level includes:

I. Association of meanings with higher level abstractions (e.g., *democracy, hope*)

II. Identification of shades of meanings

III. Increased understanding of shifts of meaning (or variability of meanings) influenced by context

IV. Interpretation of figurative and idiomatic language

V. Use of terms, *suffix, prefix, root, stem, diacritical mark, primary accent, secondary accent, homograph*

VI. Interpretation of dictionary, glossary, and index information

  A. Cross references (e.g., see *purport*)

  B. Change of accent (e.g., homographs)

  C. Principal parts of verbs

  D. Comparative and superlative forms of adjectives

  E. Etymology

  F. Knowledge of aids in introduction

  G. Sources of words

  H. Use of term *colloquial*

  I. Pronunciation of geographical names

Sight Vocabulary

During the period of initial reading instruction, the child acquires a stock of words he can recognize at sight. Prep-

aration for the acquisition of this sight vocabulary has been made through reading-readiness activities For example, the child has learned that printed words represent experience, that there are likenesses and differences in the *sounds* of words and in the printed forms of words, and so on This preparation facilitates the association of meaning with word forms

Guides for the Child One of the major goals of initial reading instruction is the development of skills and abilities which produce retention of word learning Usually this is achieved by guiding the child in the use of word-recognition techniques *First*, the child is taught to use the *context* as an aid to recognition It is believed that the visual impression of a symbol is strengthened to the degree that the child reads for meaning This requires a considerable mental maturity and experience on the part of the child in order to *anticipate* words Also, the teacher must provide the child with opportunities to read *meaningful* material from the very beginning *Context clues*, then, are used as a legitimate approach to word recognition.

The child is taught to use a *second* aid to word recognition *picture clues* This is another type of context clue If the young child is to use context and picture clues effectively, he must be given systematic guidance. Otherwise, he may not learn how to use these important aids or he may become overdependent on their use

A *third* aid to word recognition is developed from the child's feeling for language rhythm For example, in one set of basal readers, the child is led to anticipate words in such phrases as these "One, two, three Here I go"

During the period of initial reading instruction, the child is taught how to use a *fourth* type of word-recognition and *configuration clues* This type of aid gives the child a direct visual attack on the word form itself. The child is led from the noting of likenesses and distinguishing differences between the general appearance of words to the observation

of distinguishing details. Continuing use of these four aids is made as the child's attention is directed to the phonetic analysis and the structural analysis of words in subsequent reading activities.

To summarize, the child usually is taught how to use four aids to word recognition during the period of initial reading instruction:

1 Context, or meaning, clues
2 Picture clues
3 Language-rhythm clues
4 Configuration clues

Pertinent Problems The development of a stock of serviceable words which the pupil can recognize at sight brings to the fore several problems

First, is the child ready, or sufficiently mature, to profit from a given type of initial reading instruction? Among the many factors involved in the great number of failures in first grade, immaturity of the learner appears to be especially significant This lack of readiness for reading may be overcome by adequate reading-readiness activities as well as by permitting the child to live a little longer before attempting to acquire power in reading Wide backgrounds of experience for developing meaning associations are built through experiences—acquired through the senses and furthered through discussions and reading

Second, what words are important enough to be used as a basis for developing initial reading ability? The use of experience records as the pupil's first introduction to reading would have serious limitations if the teacher required every pupil to recognize at sight all the words Among many other reasons, the pupils should not become "word"-masters on such materials because the words *may not occur frequently enough in* materials used in the immediate future to be serviceable. Provision must be made for the maintenance of first-learning and this is one of the chief reasons for the use of basal-reading materials in the primary grades.

Third, what materials are valuable for building a serviceable sight vocabulary? This question is pertinent because it is desirable to develop the sight vocabulary not in isolation but in the situation in which it will be used most frequently; namely, the context.

Fourth, what procedures have merit for developing a sight vocabulary? Throughout this discussion an attempt is made to cite procedures which place a premium on the value of rich and extensive word meanings, which help the learner build a concept of reading as a thinking process, which give the beginner a feeling of his growth in reading power, and which stimulate the learner to a pleasurable anticipation of reading.

Basic Principles and Assumptions. Acquisition of a serviceable sight vocabulary by the beginner is achieved usually by systematic and intelligent planning on the part of the teacher. To minimize the exploitation of childhood in the classroom, the following basic principles and assumptions are offered for consideration.
1. Readiness. Before a beginner is confronted with the demands of thoughtful reading, his readiness for the processes involved should be appraised. Since reading is a complex of abilities requiring, among other things, perception of relationships, a substantial memory span, ability to discriminate between word forms, anticipation of meaning, ability to carry the author's sequence of ideas in mind, and a fairly large speaking and listening vocabulary, it is evident that the acquisition of a serviceable stock of sight words requires a general readiness on the part of the learner. The development of this experience readiness is largely a co-operative affair between Mother Nature and the teacher. Viewed in this light, many reading difficulties can be prevented by an adequate orientation or preparation for the demands of the situation.

When retarded readers are brought to the clinic and found to have very little control over a prepruner vocabulary, it is a common procedure to arrange for the administration of certain tests to determine whether or not the child is even ready for initiation into systematic reading instruction. The data gathered from these studies are startling because the child may have been diagnosed as "word blind," as a case of "reversed vision," or as some equally meaningless type of disability—all because he has not reached the maturation level necessary to meet foolish adult expectations of achievement. A corollary can then be stated: When a pupil exhibits an inability to establish control over a serviceable sight vocabulary, his readiness for systematic reading instruction should be appraised.
2 Speaking Vocabulary. One of the most important principles of vocabulary building may be stated The teacher should insure, before introducing any new reading material, the incorporation of the "new" reading words in the speaking or understanding vocabulary of the learner. This is especially important during the period of initial instruction when the pupil has insufficient control over the use of context clues or other word-perception techniques Many cases are on record showing that pupils have encountered difficulties in reading because they did not know the meanings of such common words as "nut," "meadow," and "brook " Mere reproduction of the word in speaking or writing does not insure meaning

3 Purpose Attitudes developed during the prebook period require extension and development throughout the reading program. The attitudes of reading-for-a-purpose and anticipating meanings need to be developed, keeping the mechanics of word-form recognition subordinated for the learner. Since purpose dictates to a high degree the rate, accuracy, and depth of comprehension, the general motive should be established *before* the first reading or study of the unit.

When purpose is removed from the reading situation, orientation is incom-

plete and the integration of the learner becomes difficult to establish The result may be aimless activity characterized by word calling, confusion of word forms, inaccurate comprehension, low retention, and a number of kindred ailments. Pupils known to confuse "saw" with "was" have read correctly the sentence "Jerry saw toys and toys and toys" in response to the teacher question, "What do you suppose Jerry saw when his father took him to the store?" This illustration can be multiplied many times by alert classroom teachers and clinical workers, providing concrete evidence of the value of establishing habits of purposeful reading for defeating attempts at memorization. Children should be given a strong motive for vigorously attacking reading materials.

4 *Meaning and Mechanics.* It is axiomatic to state that the whole reading-to-learn program should be overlaid with meaning The mechanics of the reading process—such as left-to-right progression, return sweeps, and perception of word forms—are serviceable to the degree that they are made automatic or habitual. The learner who must direct his focal attention upon such items is seriously handicapped in his attempts to comprehend the organization, sequences of ideas, and general thought or impression of the reading content. To give meaning (or semantic identity) its proportionate place in the systematic acquisition of reading accuracy and power, there is the implication that mechanics should be developed incidentally, but systematically, in a reading-to-learn situation. If such

items as reading vocabulary are developed in isolation from the content, there first must be pupil need for the help and, second, there should be an immediate opportunity for practice on the new learning in a type of situation when it can be serviceable. For example, a would-be golfer doesn't learn to golf merely by using a driving net, a landlubber doesn't learn to swim by *practicing swimming strokes on dry land*; a child does not learn to solve arithmetical problems by continued practice on computation, the commercial student doesn't acquire typing skill by learning the names and uses of the parts of the machine; a child *does not learn to get along with others* by a mere memorization of the Bible or from continuous haranguing by the parents; and a beginner does not experience the satisfaction of thoughtful reading by memorizing sound or words in isolation The vision specialist builds new visual patterns by giving exercises which keep the mind occupied while the subconscious learning of new oculomotor behavior, or seeing habits, is taking place Likewise, the mechanics of reading are reduced to automation when the pupil is given appropriate materials and when his mind is occupied with the thought in question.

If this principle of subordinating the mechanics to the meaning is observed, then "situation" practice rather than isolated drill will appear highly desirable and the problem of the transfer of learning from the practice conditions to the functional situation will be reduced to a minimum. Briefly stated, the proposi-

tion is: The mechanics of reading are serviceable to the degree that they contribute to a facility of understanding. Since words have more than one meaning, it is important that vocabulary development include the teaching of a number of meanings for given words

5 *Anticipation of Meaning* To keep meaning uppermost in the mind of the learner and to help the child identify "new" reading words from the context or general meaning of the sentence, the wise teacher will help set up a general motive or pivotal question for the activity For beginners, she may lead the children through the first (silent) reading by the use of guiding questions over each sentence As the child gains in reading power, he is encouraged to anticipate large units of thought. Many of the common handicaps to efficient reading may be prevented or corrected by helping the pupil build techniques for anticipating meaning

6. *Systematic Instruction* Since each level of development represents a hierarchy or integration of previous learnings, it appears reasonable to assume that reading power can be more efficiently developed through systematic instruction Accidental, hit-and-miss, or certain types of opportunistic learning are likely to contribute to inefficiency and confusion rather than integration Great engineering feats have been achieved through *planning*, outstanding professional careers are numerous because certain individuals have *prepared* themselves for a certain type of service, many explorations have been successful because needs and conditions have been *anticipated*, successful businessmen frequently inventory their stock and *reappraise* their policies, physiological development occurs in *systematic* cycles, and there are data to indicate that intellectual development is also systematic. The formal teacher violates the principle of systematic learner development by using teacher monologues, setting up class-recite-to-teacher situations, prescribing materials to be memorized,

and, in general, overlooking the maturation levels and rhythms of the pupils in her charge.

7. *Learner Needs.* An obvious principle often violated is that vocabulary development should be offered in terms of pupil needs. Perhaps there is some grain of truth in the statements of our critics that one half the children learn in spite of the teacher and that much time is wasted in teaching children things they already know. Increasing numbers of alert teachers have refuted the first statement by providing equal learning opportunities in the classroom to challenge *all* pupils, and they have gone a step farther by directing the learning in the classroom to overcome obstacles to normal development In order to be consistent, therefore, the teacher has arranged for groups within the classroom to progress at varying rates, and activities for development of vocabulary have been initiated after the preparation for the reading of each unit and the subsequent first silent reading so that specific word perception and comprehension difficulties could be removed Rule of thumb procedures in some teacher's manuals are being accepted as only suggestive, because the master teacher is in a sense a diagnostic teacher, always alert to problems of teaching children that which they do not know.

A more familiar analogy may be taken from materials on the pedagogy of spelling Until a few years ago elementary-school children were required to labor over long rows of spelling words regardless of the social value of the words or of the pupil control over the words To bring some degree of sanity to this situation, various criteria were established for the selection of spelling words and a formal plan was devised for the study of new words and the maintenance of previous learnings On Monday the pupils were given a test to identify the words each pupil needed to study on Tuesday; on Wednesday there was a retest to check the progress on the new words and the

words studied during the same week of a previous month; and Thursday and Friday were used to complete the work needed on the words "missed" on Wednesday. While this plan has been and will continue to be improved upon, it was a step in the direction of liberating children from the bondage of attempting to learn things they already knew. Perhaps the boy was right who defined multiplication as "teaching something a body already knows."

8. *Versatility.* Since efficient reading implies facility in thinking, it follows that pupils should be encouraged and helped to develop a variety of ways to identify "new" reading words or "old" words in new contexts. Perhaps in one situation a word may be identified by some detail such as *o* in *mother*, in another situation by the length of the word, and in still another by the rest of the meaning in the sentence. Overdependence on some one clue or cue to a word is a handicap to be avoided.

CONTEXT CLUES

One of the most important aids to word recognition and meaning is the clue afforded by the context. When the reader meets a "new" reading word, he may use contextual clues to identify it in one of two ways. First, he may use a word from his speaking vocabulary which appears to square with the meaning of the selection Second, he may examine the context for clues to the meaning. That is, he may find the meaning by reading the total selection or he may find an explanation tucked away in a footnote or within the structure of the sentence or paragraph. In the first instance, he calls upon his experience and evaluates it in terms of the problem at hand; in the second instance, he makes use of his knowledge of language, elementary though it may be. Contextual aids may be used to identify a word form and/or to establish the meaning of a word or phrase. Context clues provide only one aid to recognition.

Wide Use of Context Clues. Both beginners and experienced readers use context clues as aids to word recognition. Until the child's visual-discrimination skills and abilities are developed to a reasonably high level of efficiency, he relies heavily upon context clues. As the pupil acquires control over aids to word recognition, he becomes increasingly versatile in using context clues to appraise the validity of his perception In addition, he learns to use an increasing variety of contextual aids to recognition Hence, the development of the necessary skills and abilities in the effective use of context clues to word recognition is a perennial problem at all school levels

It probably is a truism to state that context clues are used first, last, and always in the reading process In the first place, they are used as a means of developing a basic sight vocabulary during initial reading instruction. Second, they are used as a means of developing a reading-to-learn attitude. Third, they are used to facilitate study at higher levels of reading achievement. So it is clear that *context clues are serviceable in word recognition and the getting of meaning at all levels of reading achievement.*

Steps in Problem Solving. Three important steps in problem solving are the identification of what is given and of what is called for and the estimation of the probable answer. In one sense, all reading is a problem-solving situation. The reader examines the context and reacts in terms of his evaluation of it. If he comes to a word he cannot pronounce —even though it is in his speaking and listening vocabulary—or one for which he cannot identify the meaning, he may examine the context further for the probable answer. When children are given systematic guidance in the use of contextual aids to word recognition or meaning, the hit-and-miss guessing element should be minimized and eliminated. The systematic use of context clues is *not* outright wild guessing; instead it is a proc-

THE EGGS HATCHED TODAY[1]

Victoria Lyles   *York, Pa*

ess of examination and evaluation—of basing the probable answer on the facts of the situation.

Ability to use the thought of the illustration, phrase, sentence, paragraph, or story for identification of new reading words (i e , inferring the word from the adjacent meanings) is an important counterpart of a reading-to-learn attitude In addition, facility in use of context clues is necessary in building adequate pupil background for *judging* the accuracy of his word-perception techniques Since certain word-analysis techniques are of value largely for the mere pronunciation of the word, it is highly essential that pupils should acquire control over other word-perception tech-

niques and should have the power to apply the "meaning" test, i.e., does the identified word make sense? Wild guessing may result from overemphasis or insufficient emphasis on use of context clues for word recognition.

Gates (97, p. 241) recommends the development of the ability to make deductions from the context as *one approach to the acquisition of versatility* in word perception:

> The method of trying to utilize the context as an aid in recognizing words is a thoroughly wholesome one It possesses the merit of placing comprehension foremost. When unfamiliar words are encountered, this method introduces the minimum of distraction from the thought. If used exclusively or excessively, however, the method may lead to distortion of the thought and the practicing of errors in word perception The result of these errors will be apparent in time both in misrecognition of words and in a limited reading vocabulary This method alone is, therefore, insufficient

The value of contextual aids at all levels of learning is emphasized by Dr Edward W Dolch (60, pp. 63–64):

> In beginning reading many children tend, on meeting a word they do not recognize, to abandon the attempt to read and to stare helplessly at the strange symbol or at the teacher Instead they should be taught the *habit of reading the rest of the sentence and then guessing what the unknown word might say* This habit is learned by the bright children without teaching, but all the children should soon acquire it Without it a strange word may completely stop all progress in getting the meaning of the reading material With it all sorts of seat work and independent reading matter can be arranged for the children, and they can keep busy and learning despite the few mistakes that wrong guesses may result in The habit is also absolutely indispensable for any progress in reading outside of school or independent reading in school There cannot always be a teacher or adult to ask questions of In high-school or college work, strange words must be attacked in this way, as dictionaries will not be used as often as they might be In fact, all adults continually

use guessing from context in their reading of semitechnical material.*

Nila Banton Smith (213, p. 84) summarizes the value and limitation of contextual clues:

Finding out words through context is a method of attack frequently used by children; for example, in the sentence, "He cut the bread with a big knife," the general meaning of the sentence naturally suggests to the child the unfamiliar word knife. Without proper guidance, this use of context clues may result in random guesses; but under wise guidance it becomes one of the most useful ways of finding out new words.

Types of Contextual Aids. Generally speaking, contextual aids to recognition and meaning are of two types. The first type may be thought of as experience clues to recognition and meaning. That is, the reader draws upon his past experience in recognizing the word and for identifying a particular meaning. For example, the young child who has never seen the animal *bat* might have difficulty with the word in this sentence: "The bat flew into the barn." The use of experience clues in the situation is likely to be a process of evaluating word-experience relationships. This context is supplied in part by the child's experience with living things.

A second type of contextual aid involves the use of the verbal (phrase, sentence, paragraph, or total selection) setting as an aid to recognition and meaning. For example, the child might identify the word *covers* from the context in this sentence: "Take began to pull the covers off the bed." By reading the rest of the sentence and coming back to the unknown word, the child learns to anticipate the meaning. This examination of the context-for-meaning clues to word recognition is a very important habit to be developed.

An appreciation of this second type of

contextual aid is enhanced to the degree that the child understands the interconnectedness of words. First, the child begins to develop a sentence sense, to acquire a knowledge of the uses of end punctuation such as periods and question marks and to acquire a feeling for paragraph unity during the reading-readiness and initial-reading periods. This achievement is furthered through the careful development of language-type and reading-type experience records. Second, during the first stage of reading, the child is further helped by an interpretation of pictorial aids, especially illustrations. Third, early during the child's development of basic reading skills, abilities, and attitudes, the teacher may guide him in identifying words and their general meanings by means of inferences. Fourth, even before control over phonetic analysis is established, the child has been inducted into the structural analysis of words. For example, suffixes—such as s and ed—are called to his attention during the first year of reading. Fifth, during the first stage of reading, the child learns that a given word may be used in more than one sense, depending upon the other words in the sentence, paragraph, or selection. Sixth, during the intermediate grades, the child learns to use typographical aids to meaning. For example, he may learn that attention may be directed to a word with a special meaning by means of quotation marks, italics, or boldface type. In another situation, a special word may be explained in a note enclosed by parentheses immediately following the term. Then, again, an asterisk after the word may call attention to a special term which is explained in a footnote. Seventh, as the child achieves more control over language structure in the intermediate grades, he learns to use structural aids. For example, he learns that appositive, nonrestrictive, and interpolated phrases and clauses are set off with dashes or commas are useful clues to recognition and meaning. Eighth, during the intermediate

* From Edward W. Dolch: *Psychology and Teaching of Reading.* Boston, Mass.: Gunn and Company, 1931.

grades the child learns to interpret synonyms and antonyms as aids to meaning. Ninth, at this same time, additional aids such as the analysis of the roots, prefixes, and suffixes are used with proficiency. Tenth, meaning is further enhanced as the child learns to identify and interpret metaphors and similes. Lastly, the child acquires the ability to use higher level processes of evaluation by understanding the author's mood, intent, and tone.

Activities. The following activities are fruitful for building the attitude of reading for meaning and for developing the ability to make maximum use of the context for recognition of unfamiliar reading words:

1 *Materials of High Interest Value* One of the most effective means of developing the ability to anticipate meaning is the use of reading materials of high interest value to the pupils. Under the right circumstances, experience records motivate interest and the anticipation of meaning for beginners and even for more experienced readers. After the pupils have achieved a reasonable degree of independence in reading, the use of contextual aids to the recognition of words may be furthered by guiding children in the reading of highly interesting material at their independent-reading levels. This point of view is ably summarized by the Cincinnati, Ohio, teachers (189, p 238):

One of the most effective means of enlarging the pupil's sight vocabulary is to provide for extensive reading of material which makes a strong appeal to his interest and which lies within his comprehension.

To be interesting, the reading materials must have meaning for the child. Initial reading materials should be highly meaningful to the learner in order to develop facility in the use of context clues from the very beginning. Hence, the first suggested procedure is the use of materials with high interest value.

2 *Experience Records* Records of experiences dictated and revised by the group are a dual means of building attitudes of

reading for meaning and of anticipating thought. First, the pupils establish the "feeling" for what authorship means; and second, the reading or rereading of the record on various occasions gives the pupils at least one "slant" on the purpose of reading materials. (See chapter on Initial Reading Activities.)

3 *Labels* The use of labels to meet classroom needs—such as identification of cloak hooks, designation of objects in a display, and location of classroom supplies—furthers the development of desirable attitudes of reading for meaning.

4 *Bulletin Boards* Each morning as the children gather around the bulletin board to read the news, to check on their room duties for the day, and to get any exciting announcements, meaning soars to new heights on the pedagogical stock market and large dividends of desirable learnings are returned to the business at compound rates of interest.

5 *Words in Context* If pupils are to acquire the ability to deduce or to infer words from the context, then it follows that they should be given ample opportunities to encounter "new" reading words in such situations. In view of this most authors of teachers' manuals emphasize the need (1) for preliminary discussions which insure the use of "new" reading words in the speaking vocabularies of the learners, (2) for the silent reading or study of the reading unit in which *one* of the purposes is to identify unfamiliar words from the meaning and to identify troublesome words on which they require further vocabulary development, and (3) for the vocabulary development following the silent reading so that the activities will be offered on the specific words over which the pupils should be given further control, thereby creating a learning situation which meets the needs of the learner. (See chapter on Directed Reading Activities.)

6 *Guiding Questions, Comments, and Suggestions* By these means the teacher may direct the reading so that the "new" reading vocabulary is anticipated by the

pupils. This procedure is valuable at all levels, especially for beginners.

By means of a well-stated guiding question, the teacher can create a situation wherein the pupil will anticipate the meaning, and, therefore, the word. For example: If the "new" word is *toys* in the sentence, "Tom saw many toys," the teacher may lead the pupil to anticipate the "new" word by the question, "What do you think Tom saw when he visited this store?" For other situations, the pupils may be motivated to identify "new" words by such questions as: "What did Tom see?" "Whom did Tom see?" "Where did Tom go?" "What did Tom make?" Questions of this type are used to guide the introductory, or silent, reading.

As soon as the children have acquired initial skills and abilities in reading, they may be guided by other types of questions and suggestions. If a pupil cannot *pronounce* a word during his silent reading, he may be helped with these suggestions: "Read the rest of these sentences to see if it will help you tell what the word is. Leave the word and read the rest of the sentence to find out what it is. What did Tom want to buy at the store? Why is Jerry hurrying home?"

7. *Key Sentences.* The use of key sentences containing troublesome words developed with the help of the pupils and written on the blackboard or sentence strips placed in a chart holder is another means recommended for giving the pupil self-help during either directed or independent reading activities. When the teacher has prepared the key-sentence strips beforehand, they may be presented as an incidental part of group discussion before the first reading of the unit in which the "new" or unfamiliar words appear. In preparing the key sentences, it is advisable to surround the key words with other words already in the reading vocabulary of the pupils

8. *Multiple Choice Activities.* Both context-clues and discrimination techniques are used in situations such as the following:

| Jerry saw | toys, | | Jerry | saw | toys |
| | toys | | | was | |

9. *Completion Sentences.* Under desirable learning conditions, the ability to anticipate meaning can be developed by activities which require the pupil to complete the meaning of a sentence by the addition of a word or a phrase.

Examples

Directions Write a word on the line which makes the sentence true

The color of grass is ——
The name of the dog is ——

Directions Write a word on the line which makes the sentence true

Jerry wanted a ——
Tom —— home
Mother gave —— a new doll
Mary —— went —— boat

10. *Sentence Matching Activities* The completion of sentences by matching words or phrases is an exercise used for developing the ability to discriminate between word forms and to anticipate meaning.

Example

Tom saw	a doll
Mary wanted	ran away
The dog	a boat

11. *Predicting Events.* Guessing what will come next in the story is an interesting way to focus children's attention on the thought of the story and to anticipate meaning

12. *Selecting Words to Match Pictures.* Exercises may be used which require the pupil to select one word, from a number of words, which best describes the central idea in a picture.

13 *Riddles* An occasional period in which the pupils make up riddles may contribute to the ability to anticipate meaning. However, these games and devices can be overdone.

14. *Direct Explanation.* Most of the above-mentioned activities give the pupil opportunities to use contextual aids in teacher-supervised situations Many of the activities are especially valuable for

beginners However, at all school levels, a direct explanation of how to use each type of contextual aid is highly desirable. In giving the pupils direct explanations, the teacher should not assume that she can *talk* the children into good *reading habits* Guidance must be given *when a need* arises Guidance may be of two types direct explanation and supervised reading Both types have a place in the instructional program

Beginners may be told that one way to identify an unknown reading word is to read the rest of the sentence A few examples of homographs (e g , *read* and *lead*) may sell children on the value of the rechecking or verification of a pronunciation When the pupils come in contact with typographical aids (e g , quotation marks, italics, boldface type, parentheses, or footnotes), these should be called to their attention and their uses explained Then, again, the pupils will encounter language-structure aids (e g , restrictive and nonrestrictive phrases and clauses) in their reading activities long before they will learn to use them in their writing The use of punctuation and of language-structure aids to recognition will require explanation, too Systematic explanation will be required when the pupils are introduced to roots, prefixes, and suffixes Systematic guidance in the interpretation of these contextual aids calls for teacher explanations and pupil discussions This type of guidance in reading situations develops skills, abilities, and attitudes which are prerequisite to writing

The effective use of contextual aids requires basic understandings of language One of the major goals of reading instruction is the development of attitudes toward the uses of language A dual approach is made to this problem First, the child acquires basic notions regarding the relation of language to experience. He learns that words stand for things, but that words are abstractions and, therefore, do not tell all about experience Second, the child acquires

basic notions regarding the interconnectedness of words He learns that the other words in a phrase, sentence, or selection cause the meaning of a word to shift; he learns that words can be used in more than one way. As the child gradually acquires basic understandings of language, he makes more effective use of contextual aids to recognition and to meaning

Before the teacher can hope to do an acceptable job of guiding pupils in their use of contextual aids at higher levels, she must have basic understandings of how language functions in human affairs Considerable help may be obtained on the language-experience side of the problem by reading the following books in the order indicated.

Hayakawa, S I *Language in Action.* New York: Harcourt, Brace and Company, 1941.

Lee, Irving J *Language Habits in Human Affairs* New York Harper and Brothers, 1941.

Korzybski, Alfred *Science and Sanity* Lancaster, Pa · The Science Press Printing Company, 1941

An understanding of how and why words change their meanings with their verbal settings may be obtained by reading the following references in the order indicated

Walpole, Hugh *Semantics* New York· W. W. Norton and Company, 1941

Language in General Education New York: D Appleton-Century, 1940

Reading in General Education. Washington, D C American Council on Education, 1940

Ogden, Charles K., and Richards, I A *The Meaning of Meaning.* New York Harcourt, Brace and Company, 1936

A popular book covering both aspects of the problem is:

Chase, Stuart. *The Tyranny of Words* New York Harcourt, Brace and Company, 1938

Cautions. In developing the ability to use contextual aids, the teacher should appraise the child's levels of reading

Clark M. Frazier, Bernice Bryan   *Cheney, Wash.*

achievement, provide interesting materials at his level of achievement, and adjust teaching methods to the child's aptitudes.

1. *Reading Level.* It is not possible to develop the effective use of context clues in situations where the child is bogged down with the mechanics of reading. In his *independent reading*, the child should have little or no difficulty with word recognition. Wide *independent reading* is essential to the development of effective reading habits. When the reading is done under close teacher supervision, not more than one out of twenty running words should be a "new" reading word for the child. *This gives him an opportunity to use contextual aids to recognition.* (See chapter on Discovering Specific Reading Needs.)

2. *Pupil Differences.* Occasionally, a child may require special help with word learning. These differences should be recognized. Usual procedures for teaching the use of context clues will avail little if the child has special difficulty in *learning* and remembering words. (See the section on

the Fernald-Keller approach in the chapter on Initial Reading Activities.)

3. *Material.* To develop the effective use of context clues, reading material should meet at least two requirements. First, the material should be interesting and it should meet the needs of the pupil. Second, *the vocabulary should be repeated in a sufficient number of different situations to insure a large number of meaningful associations with each word.*

PICTURE CLUES

The context of reading material includes words and illustrations. The words on a page are sometimes called the *verbal context; the illustrations, nonverbal context.* Illustrations, pictures, and other nonverbal material are included to stimulate interest, to make the books attractive, and to facilitate comprehension. Since these pictorial aids further understanding, they also contribute to word recognition. In one sense, picture clues are one type of context clue.

Pictorial aids *to word recognition* and to meaning have significance in teaching

beyond the use of illustrations in basal readers The viewing of flat pictures, stereoscopic pictures, motion pictures, maps, charts, and the like is excellent preparation for the intelligent first-reading of a selection or for the follow-up. In all learning situations, pictorial aids should be used to insure adequate working concepts

Illustrations Modern reading materials for elementary-school pupils have, in many ways the content has been carefully selected; more attention is given to children's interests; more attention has been given to the systematic gradation of the material, and the books are much more attractive One of the keys to the attractiveness of modern reading materials is the art work

Beginning reading materials have been designed in such a way that the illustrations carry the burden of the story action The clues afforded the beginner by the illustrations are a matter of prime importance To make effective use of these clues, the pupil must have systematic guidance

Requirements of Illustrations An illustration in initial reading materials must meet more than aesthetic requirements In the first place, the illustration must *invite* the child to read, it must have items of high interest value which should present a strong appeal to children Second, the illustration should contribute to the page unity In order to avoid a cluttered effect, there should be only one major illustration on each page The illustration should be an integral part of the text Third, the illustrations should complement the text At no time should the illustration be a substitute for the verbal text, thereby making it unnecessary to read At all grade levels, the illustration should clarify "new" reading vocabulary and enrich the pupils' concepts Fourth, in beginning materials, the illustration should display the action while the verbal text tells what the characters are saying Fifth, the illustrations should stimulate pupil discussion In short, illustrations

should be artistic, helpful to the pupils, and appreciated by them.

Procedures. The beginner needs systematic guidance in the use of illustrations as aids to understanding and to word recognition

1. *Telling Story from Illustrations.* Most modern reading materials are sufficiently well illustrated so that pupils may be led to get the thought of a given story by thumbing through the pages and viewing the story from the illustrations. While this is an excellent means for stimulating the curiosity of kindergarten children, it is also a legitimate procedure for creating a specific story readiness and for associating word meanings and picture meanings This pretelling of the story by the pupils creates a very fine situation for insuring that the new reading vocabulary is within the pupil's speaking vocabulary This is only one approach to this phase of reading instruction

2 *Preparing Titles for Pictures.* Facility in the use of picture clues can be further developed by permitting each pupil to prepare a small booklet of pictures under which are written appropriate titles This type of activity is desirable even for first-grade entrants For children who are in the initial stages of learning to read and write, it will be necessary for the child to dictate the titles to the teacher, who may write them on the blackboard for the pupil to copy Such activities require very little motivation because children usually enjoy cutting out pictures from magazines at home, presenting them for approval at school, and preparing the booklets Incidentally, this is one means of interesting the parents in the school achievements of their children

3 *Labeling* Labeling objects within the classroom can be a most fruitful activity for developing the ability to associate meanings with word forms and to note similarities and differences among word forms Pedagogical monstrosities result when meaningless situations which insult the intelligence of the pupils are

add meaning to class endeavors but also provide an excellent means of correlating written composition, art, and supplementary reading activities Such materials may be prepared as charts, individual booklets, class scrapbooks, bulletin board exhibits, or collections for the reading center or library corner

7. *Using Picture Dictionaries* Probably one of the most helpful child-prepared books is the picture dictionary Materials of this type encourage the pupil to combine the use of context and picture clues to word recognition.

Picture dictionaries may be classified into two general types: individual and group Individual dictionaries have the advantage of being more personal Before individual dictionaries are developed, the pupils may be guided in producing a group dictionary from the first words used in initial reading activities. The words and their illustrations may be written on one section of the blackboard, or they may be transferred to oak tag and put in a chart holder or a big book

Picture dictionaries have been published. While there may be some advantage in having one of these on the reading table, the beginners will profit most from constructing their own dictionary

Commercial picture dictionaries may be obtained from the following sources

Self-Help Picture Dictionary Company, Battle Creek, Michigan

Walpole, Ellen W *The Golden Dictionary* New York Simon and Schuster, 1944

Courtis, S A , and Smith, Nila Banton *Picture-Story Reading Lessons* Yonkers-on-Hudson World Book Company, 1927

Watters, Garnett, and Courtis, S A *A Children's Picture Dictionary* New York Grosset and Dunlap, 1939

Pupil-made picture dictionaries usually are of two types notebook and card file A large loose-leaf notebook is used so that new words may be added in alpha-

betical order. The card file probably is one of the most convenient devices for recording words For beginners, the cards should be large, perhaps four by six inches; for more experienced pupils, three by five inches.

In his dictionary, the child records words as they are met in reading activities. First, the correct word form is recorded. If cards are used, the word is written on one side and the other side is used to illustrate the meaning. Second, the meaning, or meanings, of the word are illustrated Words such as *Tike* (dog), *Mary*, *house*, *run*, and *blue* (a color) may be illustrated with pictures or drawings. If a word has more than one meaning, then additional illustrations are added as the new meanings arise *The use of the word also may be* illustrated by means of a key sentence in which the new word is underlined Connectives, such as *when*, *in*, *out*, *up*, *down*, *and*, *but*, and *while* will require sentence illustrations

A picture dictionary has several advantages First, at a very early period, the child is given one means of achieving *independence* in reading. Since the child illustrates and files each word, he knows how to locate it quickly. This allows the child to "cut his apron strings" from his teacher so that he does not have to ask for help on every word Second, *emphasis is placed on meaning* rather than on the mechanics of word recognition The child gets the meaning from the verbal context or the pictorial aid Third, *the child is motivated* by watching his vocabulary grow in a very tangible form Fourth, the *dictionary habit* is established at a very early age Fifth, the child learns how to *locate* information in a dictionary. He learns about the alphabetical arrangement of words, and, incidentally, learns the alphabet as he has a need Sixth, the alphabetical arrangement of words in the picture dictionary calls attention to *initial* sounds and facilitates the development of *left-to-right* word attack Seventh, writing the word and illustrating its

SEEING DIFFERENCES BETWEEN SILHOUETTES

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istic differences in configurations, and comparing the capitalized and the lower case forms of words

1. *Pupil Analysis* There is no substitute for well-directed class discussions in which the pupils analyze configuration differences and share their experiences. These discussions need not be prolonged When the pupils are asked what they see in the general shape of a word that helps them remember it, this sharing of experiences will not be forgotten very soon

2. *Direct Explanation* Occasionally there may be a need for direct teacher-explanation of differences in *length*, *height*, and *vertical* characteristics of words However, these differences may be brought out by carefully directed questions

3. *Matching Title and Context Words* Finding words in the context which match words in the title of the selection is one means of calling attention to similarities and differences between word forms This also is a way of comparing the lower case and capitalized forms of a word.

4. *Matching Same Words Printed in Large and Small Type* Matching exercises which involve the use of word cards can be used in a number of ways During the directed-reading period, the pupils will enjoy and profit from activities which require the finding of words in the context that match both the form and the meaning of words presented on cards by the teacher This is an important aspect of reading instruction for beginners because pupils may be able to recognize words printed in large size type on charts, the blackboard, or word cards but be unable to recognize the same words printed in the 18-point type of the preprimer.

5. *Matching Words Printed in Same Size Type* From words selected in previous or immediate context, exercises can be prepared for beginners to develop facility in word discrimination by attending to configuration likenesses and differences. Activities similar to the following have been used by successful teachers to develop visual discrimination and perception.

Directions: Draw a line under the words which are the same as the one at the top.

saw	they	toy	father	cat
was	their	toy	mother	sat
boy	them	boy	father	cat
saw	day	joy	sister	rat
say	they	toy	father	bat

Directions: Draw a line under the word in the sentence which is the same as the first word.

| toys | 1. Jerry saw many toys |
| wanted | 2. Jack wanted to go. |

6. *Identifying Right Word in a Sentence.* The purpose of this type of activity is to cross out the wrong word in a sentence containing a pair of words of which only one is correct.

Examples

The $\genfrac{}{}{0pt}{}{move}{moon}$ is yellow.

Our cat caught a $\genfrac{}{}{0pt}{}{mouse.}{mouth}$

7. *Identifying Right Word in Isolation.* The teacher writes lists of words on the blackboard that are somewhat alike in general appearance. The teacher pronounces one of the words and a pupil "frames" or points to it and says it.

Examples:

| are | an | cook | food | ran |
| arm | am | look | foot | run |

8. *Matching by Superimposition.* One device sometimes recommended for calling attention to like configurations is the writing of a word on transparent paper and matching by superimposing. A word causing difficulty is written on transparent paper. This known word is matched to the same word in a sentence by moving the transparent paper over the sentence until a word is found which matches.

9. *Matching Words and Pictures.* For this activity, the teacher duplicates a set of materials. A picture or line drawing of an object is given at the left side of the page. Three sentences containing confusing words are written to the right of each picture. The child matches the correct sentence to the picture. For example:

Picture of ball

This is a boy.
This is a ball.
This is a doll

10. *Matching Phrases.* Materials are duplicated for this activity. A phrase is matched with the same phrase in a sentence setting. The child underlines or draws a line around the phrase in the sentence setting which matches the phrase to the right. For example:

| big dog | Bob has a big dog. |
| new doll | Mary has a new doll. |

Cautions. The use of configuration clues to word recognition is to be cultivated by systematic guidance. However, the teacher must observe certain cautions. First, the child must be supplied with material appropriate to his reading level. If the material is too difficult, the child will be frustrated in his efforts to apply word-recognition techniques. In his independent reading, the child should encounter no more than one "new" word in one or two hundred running words. When reading under the direct supervision of the teacher, the child should not meet with more than one "new" word in twenty running words. The necessity of appropriate reading materials in this sense cannot be overemphasized.

Second, the child may become overdependent on the use of configuration clues. After all, the *configuration of a word supplies only one* clue to recognition. Configuration clues are insufficient when relied upon exclusively. Many of the most confusing words—such as the *th* and *uh* words—are alike in general configuration. To avoid this pitfall, the teacher guides the pupil in his development of versatility in the use of other clues to recognition.

Third, the child learns best in problem-solving situations. No teacher has ever lectured a child into the use of word-recognition skills. Hence, there should be less telling by the teacher and more pupil analysis. By adroit questioning, the teacher may help the pupils to ana-

lyze crucial factors in configuration differences.

Fourth, occasionally a child may be unable to use configuration clues effectively because of a special word-learning disability. In this instance, he must be taught by the Fernald-Keller or some similar procedure. To avoid this pitfall, the teacher must differentiate instruction in terms of a child's aptitude. From the writer's experience, all children of normal or superior intelligence can be taught to recognize words; but *all* children cannot be taught by the *same* procedure.

Phonics

The first major goal of beginning reading instruction is the development of a stock of basic sight words. During this process, the pupils are systematically instructed in word-recognition techniques involving meaning, general word configuration, and striking characteristics of words. Usually, the second major goal is to develop independence in word recognition by means of word analysis. A double-barreled approach is made through phonetic analysis and structural analysis. This part of the discussion on the development of a reading vocabulary deals with phonetic analysis as one aid to word recognition.

Phonetic analysis is a technique for pronouncing words by sound units. By studying the relationship between letters or letter combinations, and the sounds they represent, the child acquires another aid to word recognition.

There have been reports of considerable waste in the teaching of phonics as an aid to word recognition. This has been true for several reasons. First, very few elementary-school teachers in the United States have adequate background in phonetics as a basis for teaching phonics. This has often led to instruction which confuses the child. Second, until fairly recently, the reading program was usually built around a system of pho-

netics. Nowadays, the phonics instruction is incidental to the reading program. Third, for considerable period of time, phonics was the principal means of teaching word recognition. At present, phonetic analysis is taught along with a number of other aids. Fourth, the instruction of the past was not usually differentiated in terms of the level of each child's reading achievement and his particular aptitude for word learning. Many teachers today talk about reading levels and reading groups. Furthermore, there is a growing interest in teaching children by procedures tailored to their needs. For example, tracing, kinaesthetic, and other techniques have been devised for children who cannot profit from traditional methods of reading instruction. It is, therefore, recognized that not all pupils can profit from phonics instruction. In summary, the waste is being eliminated from this phase of reading instruction.

TO TEACH OR NOT TO TEACH PHONICS?

A certain type of phonics instruction has a very definite place in a *differentiated* program of reading instruction. In order to evaluate phonics instruction, two questions must be asked: First, what type of phonics instruction is provided? Second, to what extent are individual differences in achievement levels and needs recognized in reading activities?

An undesirable phonics program is characterized by the teaching of phonics as the chief aid to word recognition, by drill on isolated words, by drill on the blending of phonograms into words (a synthetic method), and by regimented instruction. This type of phonics "instruction" has little to contribute to independence and fluency in reading; hence, it has no place in a modern reading program.

A desirable phonics program is based on these considerations: First, phonics is only one aid to word recognition. Other word-recognition skills are prerequisites to phonics instruction and are to be de-

veloped concurrently and subsequently. Second, phonics instruction is given when needs arise in reading situations. These needs are discovered during the introductory, or silent, reading of a selection. Third, a word-analysis approach rather than the synthesizing of sounds into words is used. The word is always seen as a whole. Fourth, those pupils who can profit from the use of phonetic analysis are taught the necessary techniques. Some children do not require much, if any, phonics instruction; others require the use of kinaesthetic, or tracing, techniques for retention of word learning. This type of program may be used to develop independence and versatility in word recognition.

Criticisms of Phonics Instruction. Many criticisms have been leveled against phonics instruction. These indictments include: First, an overemphasis on phonics as an aid to word recognition produces "word callers." Reading is likely to deteriorate into a merely mechanical process, devoid of meaning. Second, overemphasis on phonics slows down the reading rate. Third, overemphasis on phonics reduces interest in reading, sometimes to the zero point. Fourth, unnatural articulation is often produced by unwise phonic instruction. Fifth, phonic skills do not carry over into normal reading situations. Sixth, not all children can profit from the usual phonics instruction. Seventh, the "unphonetic character" of our English language does not lend itself to phonetic analysis for the beginner. Eighth, the usual letter-type phonics instruction does not carry over to the pronunciation of polysyllabic words. In considering the validity of these indictments, one must evaluate the type of phonics program under criticism. Few teachers have a background in phonetics to avoid many of the pitfalls.

Dr. E W. Dolch has expressed his views on the teaching of phonics this way (59, p. 120):

Phonics have a recognized place in the teaching of reading Despite many complaints about the ineffective teaching of phonics, there is common agreement that the child who cannot sound out the new words he meets is tremendously handicapped in his independent reading. In times past, the abuses in the teaching of phonics have called for sharp criticism and evaluation. . . .

Dr Arthur I. Gates has summarized his point of view this way (100, p. 1):

Phonetic training should have a place in the modern reading program It is one of the several useful means of developing independent word recognition Phonetics, it should be noted, is one of several useful devices, it should not, alone, be regarded as a sufficient means of developing effective word recognition

After reviewing the literature on "The Place of Phonetics in a Reading Program," Witty and Kopel concluded (257, p. 332):

The skillful teacher will, therefore, be reluctant to use *any* phonetic method with all children However, since phonic training appears to help certain children, he should be prepared to meet the exigencies of his particular group with a knowledge of a fairly comprehensive phonetic scheme by means of which individual differences and needs may be served. In the case of children experiencing failure or great difficulty in reading or in spelling, he will use judiciously those devices—including phonics—which seem appropriate in their rehabilitation.

Place of Phonics in the Reading Program. To summarize the situation, these statements may be made. First, some children may profit from systematic instruction in phonics Second, phonics is only *one* aid to the recognition of words. Third, phonics instruction is not given until the child has developed initial reading skills, abilities, and attitudes and until there is a need. Fourth, the fact must be recognized that there are many words that cannot be identified by phonetic analysis. Fifth, instruction in phonetic analysis should contribute to effective structural analysis, especially syllabication. Sixth, phonics is emphasized along with other word-recognition aids at the primer,

first-reader, and second-reader levels of
instruction. This does not mean that all
children in the first and second grades
are to be given a dose of phonics. Instead,
only those pupils who are working at those
achievement levels and who need this type
of help are given guidance in this respect.
Seventh, a highly complicated system of
teaching phonics by means of isolated
word drills cannot be justified in the
elementary-school program. Phonics,
then, does have a place in the reading
program.

GOALS OF INSTRUCTION

In general, word-analysis activities
are designed to develop independence
and versatility in word recognition. Word
analysis is only *one* additional step in this
direction. Some of the specific goals to be
achieved include

1 *Attitude of Approach* Confidence in in-
dependently attacking new words in
context

2 *Systematic Analysis* A systematic means
of perception which permits accurate,
independent, and immediate identifica-
tion of the word and its meaning

3 *Meaning Approach* The habit of check-
ing the identity of the word against the
probable meaning of the sentence

4 *Facility in Reading* The ability to read
understandingly, rhythmically, and rap-
idly

5 *Speech* The habit of clear enunciation
and accurate pronunciation

READINESS FOR WORD ANALYSIS

Criteria for Determining Readiness At all
levels of instruction, teachers are con-
cerned with readiness factors. So much
has been written on readiness that teach-
ers have become highly sensitive to the
need for appraising background as a
factor in readiness for new learnings.
Since word analysis is a somewhat me-
chanical process, it is important to insure
basic notions about reading before the
child is introduced to it. Criteria for de-
termining a pupil's readiness for word

analysis activities may be summarized as
follows.

I. Does the pupil read for meaning?

A Has he acquired the habit of read-
ing with a purpose in mind?

B Does he use contextual aids to recog-
nition and meaning?

C Does he make accurate interpreta-
tions of punctuation?

II. Does the pupil read rhythmically?
(That is, can he phrase properly?)

III Does the pupil have adequate con-
trol over sight word techniques?

A Is he aware of similarities and differ-
ences between the configurations of
words?

B Does he use picture clues effectively?

C Is he proficient in the use of context
clues?

IV Does the pupil have an adequate
sight vocabulary?

A Does he have a sight vocabulary of
seventy-five to one hundred and fifty
words?

B Does he readily recognize words in
context?

C Does he have reasonable facility in
identifying the words in isolation?

V Has the pupil acquired the habit of
identifying unknown words during the
introductory, or silent, reading?

BASIC PRINCIPLES AND ASSUMPTIONS

The realization of the objectives of a
program for the development of inde-
pendence in word recognition is to no
small degree dependent upon the prin-
ciples and assumptions on which the
teacher bases her thinking. In view of
this, the following statements are offered
as a basis for the discussion:

*Analysis, an Approach to the Development
of Independence* If versatility in word recog-
nition is accepted as one of the objectives
for systematic instruction in the me-
chanics of reading, then it is evident that
phonics, or phonetic analysis, should be
viewed as only *one* approach to the prob-
lem. This may be true for several rea-
sons. First, other techniques may be more
serviceable for those pupils who by some

other means have acquired facility in reading and who have a phonic "sense." Second, a check on the accuracy of the identification when word-analysis techniques are used is frequently necessary in order to determine the correct pronunciation of certain words. Third, for the pupil to attain a high degree of sureness in word recognition through this one approach would probably require an unjustifiable study of phonetics, syllabication, stress, and the like. Fourth, overemphasis on this one approach tends to subordinate meaning to mechanics and therefore defeats the purpose of this phase of the instruction. Fifth, the study of the mechanics of reading is pursued only for developing facility and power in reading, but there is a danger in the study of phonics as an end in itself. Hence, the enthusiast must be cautioned that the study of word analysis is only *one approach to the development of facility in word recognition.*

Hildreth states the problem clearly (130, p. 119):

Phonics instruction instead of dominating reading practice as formerly does is legitimate place in the reading process as one technique of word analysis. Phonics practice is now recognized not as a method of teaching reading, but as a valuable adjunct to the child in comprehending unfamiliar words he meets in reading context. Phonics training aids the child in breaking up unfamiliar word wholes. The child who uses phonetic analysis most skillfully is the one who is naturally mature in speech-sound discrimination and visual perception, and who is bright enough to identify similar sound units in reading material. Identifying similar sound elements in words, such as rhyming of terminal sounds, proves from mental tests to be an activity more suited to eight-years- than six-year-old children. This fact accounts for the large amount of failure beginners experienced from instruction that was largely phonetic in character. Children often failed to carry over to actual reading material the elaborate skill in phonetic analysis developed through phonetic drill. Over-emphasis on phonics under-emphasized thought-getting and the use of context clues.

Storm and Smith summarize the situation by stating (223, p 249).

Training in word analysis should constitute only one part of a well-balanced program, a program which also makes provision for the development of appreciation, comprehension, interpretation, speed, and good habits of eye-movement.

Presentation of Whole Word. The whole word should be presented. Each element

should be taught as a part of a whole word rather than as an isolated unit; therefore, words should be pronounced as wholes in order to preserve the natural blend of the component elements It is generally conceded that the sounds of letters should not be given in isolation; instead the word should be kept as the unit In the initial period of systematic instruction in reading, a sight list is developed whereby the word is recognized as a whole Visual analysis rather than auditory analysis should be the keynote

Blending The needs of the pupils rather than the system of phonics should determine whether the stress is placed on the initial or final blend

True Sound Values The true value of word elements should be presented without distortion. Distorting the sound values of words by the inexperienced teacher is an old story, often repeated It would be much better to study "pig Latin" than to have the children trying to blend *huh-at* (*hat*), *buh-at* (*bat*), *cuh-at* (*cat*), and other "nonsense" elements, because such activity is a far cry from the type of silent-reading situation in which the pupils will practice the ability to *identify new words* It is generally conceded that the development of auditory discrimination should precede the development of visual discrimination

Analysis versus Synthesis Since transfer of training from one situation to another takes place to the extent that the situations are alike, the words should be presented from a pronouncing (analysis) rather than from a blending (synthesis) point of view. The method should be one of word analysis rather than the synthesizing (putting together) of isolated sounds. The aim should be the development of an ability for quick *visual analysis* of the word form

Common Elements Only those word elements which commonly occur in the context (i.e., have social utility or real value in the reading) should be presented in order that there will be opportunities for meaningful repetition or practice. From

this statement one would conclude that only elements found in the words of the immediate reading materials should be used. For example, *b*, *t*, *f*, and *s* occur more frequently than do *q*, *v*, *x*, *y*, and *z*. For beginners, phonic analysis should be based on words within the pupil's stock of sight words Pennell and Cusack further emphasize this point (181, p. 206):

> If phonetic elements are to be taught as an aid in the identification of words, then those elements occurring most frequently in *the reading material to be used should be* taught Scientific studies have been made to determine the number and the frequency of the phonetic elements in the words which, according to various word studies, a child *meets most frequently in his reading.*

At this point it might be well to show the need for a study of the teacher's manual which accompanies the basal *reader* A teacher's *manual is prepared* to serve as a guide and is merely suggestive, *at no time should the manual be followed slavishly* The focus should be upon individual pupil needs, whereas the manual tends to cause the learning to be calendar-dictated rather than learner-centered For the *inexperienced teacher,* the chief values of a manual are as follows

1 New words which are to be taught during the directed reading period are given.

2 Suggestions are presented for preparing the pupils for the directed reading period

3 Suggestions are usually given for systematic instruction in word perception.

4 Related activities are suggested Lists of poems and dramatizations, music, and art possibilities are frequently included

5 Ways and means of checking comprehension are usually given.

6 Different types of seatwork are sometimes described.

7 Some manuals provide suggestions for individual pupil activities.

8 Professional books where helpful information may be found are indicated.

Left-to-Right Progression. Until the pupil has formed correct left-to-right eye movements, exercises which focus attention on the middle of the word should be avoided.

Preparation. The preparatory period before each unit, story, or lesson should include the development of vocabulary readiness. Here again, *silent reading preparation should precede oral reading* in order that the pupil will acquire the most desirable study habits by which he identifies and learns the new words.

Functional Sequence. The order for introduction of word elements should be determined by the frequency of their occurrence in the vocabulary of the reading materials. Reading specialists generally agree that the emphasis should be on the development of perception or recognition skills of the reading vocabulary rather than on a system of phonics. Most writers suggest the study of consonants first.

Varying Situations. Other things being equal, the elements should be presented in varying parts of the word (initial, medial, and final), in isolation, and in varying contexts.

Silent Reading. During the silent reading period, the teacher should help the pupils apply the knowledge learned, whereas in oral reading the child should have the word quickly pronounced for him. At all times, the use of lip movement and vocalization for the identification of new reading words should be discouraged.

Rules. If rules are to be taught any time during the first three years of systematic instruction in reading, they should be learned only after each pupil's vocabulary contains an ample number of words to which the rule may be applied. This procedure is consistent with the principle of proceeding from the known to the unknown.

Application. Exercises on the analysis of isolated words should be followed immediately by the reading of context material wherein the newly learned word appears, because the mere "calling out" of isolated words does not contribute to reading power. In other words, application in actual reading situations should follow after the developmental activities. The emphasis should be on the development of the ability to analyze words in order to facilitate silent reading; the study of phonics should not be an end in itself.

This matter of application also has another implication in that only elements which occur in the context should be practiced. Every effort should be made to keep word-analysis activities from being isolated processes. The chief purpose of developing the ability to make quick and accurate identification of words is to facilitate rhythmical and intelligent reading. In view of this, the teacher is wise in assuming that transfer from word-analysis exercises to actual reading will take place to the degree that she helps the learner make that transfer. Transfer may be insured to a degree by having pupils identify the new word in their books or find it in several places on one page. Retarded readers can be helped sometimes by having them find "new" reading words in some upper-grade book in order to give them courage and to cause them to see the usefulness of the words. Immediate application and meaningful repetitions are necessary.

Individual Differences. All children can profit by some training in visual analysis of word forms, but provision should be made for small-group and individual differences in readiness for word analysis and for differences in the number and kinds of experiences needed. All children should receive sufficient help to insure this ability, but emphasis should always be placed on teaching children what they do not know. In other words, help should be given where it is needed most, and work on phonics should be discontinued as soon as the pupil has a "feeling" for word analysis and other techniques for independent word recognition. This differentiation of instruction can be effected best by giving practice in small groups. The teacher should make some provision for a listing of the word-

recognition difficulties of individual children.

Independence. If independent habits of silent reading or study are to be developed, the teacher should pronounce the word for the pupil only as a last resort. Pupils should be encouraged to use methods of word attack which they have already learned or which are obviously needed in the immediate situation Since silent reading should precede oral reading, most individual difficulties with word perception will be experienced during the silent preparation for the oral reading. Help can be given by covering parts of the word form so that known elements are exposed in left-to-right sequence. If this does not help the pupil on an "old" word, he should be referred to the situation in which it was first met This type of study can be strengthened by practice on old words in new situations The teacher should assure herself that the pupil is prepared for the new words before he reads the selection orally, but if difficulty is experienced during the oral reading, she should pronounce the word for him. It is highly important that the teacher should develop pupil independence gradually, in the larger sense of the term, so that they learn to rely less upon the presentation of new vocabulary before the first reading

Avoidance of Confusion In order to forestall confusion, only one principle or learning situation should be introduced at a time.

Wide Recognition Units Experience should be given in analyzing or breaking down the word into as few elements as possible for quick recognition

First Steps In analyzing words, attention should be directed first to the initial sounds, while other types of clues to the identification of the word also should be used.

Re-enforcement. The pupil should gain reasonable control over other techniques for recognizing words (as evidenced by a sight list of seventy-five to one hundred and fifty words) before beginning intensive development of word-analysis techniques. At all times, such experiences should be planned in order that word-analysis techniques can be re-enforced with other recognition aids, such as context, configuration, and picture clues.

Known to Unknown. The approach to study of new word elements should be made through the medium of known words

Systematic Instruction. Instruction should be offered gradually and systematically. Frequent use of a word in varying contexts holds a decided advantage over mere mechanical word drill. The teacher is warned not to confuse systematic instruction with either formal or informal teaching

Phonetic Sight Words. Certain phonetic words should be taught as sight words because they will not occur frequently enough to insure adequate repetition.

Meaning. In addition to being able to identify a word at sight and to pronounce it, the pupil must understand the meaning or meanings of the word. In view of this, every effort should be made to insure vivid associations for each word by using it often during the preparatory period as well as in varying contexts It should be remembered that phonic analysis alone only contributes to the ability to pronounce the word whereas purposeful reading requires interpretation of the printed symbol

Appraisal of Learning Systematic checks should be made on word-recognition skills, otherwise, faulty habits may be practiced. These checks may be made incidentally and systematically, during the directed reading period or by the judicious use of workbooks, blackboard, or duplicated exercises. In the final analysis, the adequacy of the learning should be determined by the pupil's ability to apply his knowledge and his skill in actual reading situations.

TEACHER BACKGROUND

It is a truism to state that a successful teacher must know more than what she

expects to teach children. In developing a unit on transportation, or the jungles of South America, the teacher must have a good background of information upon which to call. Likewise, teachers need a good background in phonetics in order to do a good job of phonics instruction. Without this background, the teacher is likely to make misleading statements which serve to confuse the learner There is too much confusion in education now. Hence, if the elementary-school teacher is to approach this problem of word analysis with a clear head, she should take the necessary steps to prepare herself for the undertaking.

The information given in this section of the chapter is for the teacher. It is given as a prologue to *what, when,* and *how* to teach phonics

I. *Terminology.* In the professional literature dealing with phonics, a few special terms are used. In order to facilitate the reading of this discussion on phonics, the following terms are described briefly:

A. *Sight Word.* A sight word is a word which is recognized as a whole. Usually a substantial sight vocabulary is introduced in context before attention is directed to word analysis Hence, a sight word may be either phonetic or unphonetic in character

B. *Phonetic Word.* Cordts and McBroom (43, p. 391) thus define a phonetic word:

A phonetic word is defined as a word in which every letter represents the particular sound which is assigned to that letter, and in which every sound is represented by that particular letter and that letter only

(Examples: *let, hop, fan*)

C. *Digraph.* A digraph consists of two letters representing one speech sound A vowel digraph consists of two vowel letters representing one speech sound, as in *s(ea)t, h(ea)d,* and *b(oa)t.* A consonant digraph consists of two consonant letters representing one speech sound, as in *s(ng), ba(th),* and *fe(ch).*

D. *Diphthong.* A diphthong consists of two vowels pronounced in a sound se-

quence that gives the impression of one sound. The two *sounds* are blended so closely together that they form a compound sound, as in *b(oy), c(ow), (oi)l, (ou)t, (t)ce, f(ew).* In *Webster's New International Dictionary,* a diphthong is defined as "a speech sound changing continuously from one vowel to another in the same syllable."

E. *Consonant Blend* When double consonant sounds are blended together rapidly without the loss of identity of any of the sounds, the result is called a consonant blend Examples of consonant blends, or double consonants, include *(st)op, (qu)ack, (tr)ack, (bl)ack, (sm)ooth,* and *(st)one* The first two consonants in each of these examples are sounded in rapid succession

F. *Syllable* A syllable may be a whole word or a division of a word. It is defined as "an uninterrupted unit of utterance" Usually a vowel is the center of a syllable, with or without a consonant

G. *Monosyllable* A word of one syllable is called a monosyllable

H. *Plurisyllable.* A word of more than one syllable is called a plurisyllable

I. *Dissyllable* A word of two syllables is called a dissyllable

J. *Trisyllable* A word of three syllables is called a trisyllable

K. *Polysyllable.* A word having more than three syllables is said to be polysyllabic. Many educators use the term polysyllable to indicate a word of more than one syllable.

L. *Phonogram* A phonogram is a word element; a letter or group of letters forming a speech sound. In *Webster's New International Dictionary* a phonogram is broadly defined as "a character or symbol used to represent a word, syllable, or single speech sound" A *word phonogram* is any word—probably learned as a sight word—used as a phonetic element in a new word, as *at* in *cat.* A *compound phonogram* is a group of letters not making a word but which is a phonetic unit of a word, such as *(st)reet, (bl)ack,*

Clark M Frazier Bernice Bryan

CLARIFYING IDEAS

Cheney, Wash

n(ight), f(eed), (oi)l, and b(oy) A *letter phonogram* consists of a single consonant M **Long and Short Vowels** The terms *short* and *long* in discussions of vowels are used in two different ways Confusion may be avoided by recognizing the different uses

Phoneticians use the terms "short" and "long" to describe vowel duration By vowel duration they mean "the actual length of time occupied by the utterance of a given vowel" "Long" and "short" are relative terms because a given vowel sound may be shorter in one context than it is in another situation Phoneticians use the terms "long" and "short" when they discuss "vowel *quantity*"

In dictionary descriptions of certain vowels, "short" and "long" are used for descriptive purposes in quite a different way from that used by phoneticians Here the terms "short" and

"long" are used to designate *quality* not *quantity* of sound.

Two diacritical markings are used in the dictionary to indicate "short" and "long" *quality* of vowels: the macron (-) and the breve (ˇ). A different type of symbol is used in phonetic transcriptions Kenyon has made this evaluation of the attempt to use diacritical marks (146, pp 65–66):

In phonetics quantity (length or shortness) means duration only, and must not be confused with the traditional unscientific distinction such as that between so-called "short *a*" in *sand* and "long *a*" in *late* The vowels in these two words, though both spelt with the letter *a*, are actually different vowels, one being *æ* and the other *e* They differ in *quality*—the way they sound to the ear—which is due to the difference in position of the vocal organs But in *quantity*, or length, the "short *a*" in *sand* is actually longer than the "long *a*" in *late*.

Barrows and Cordts summarize the situation this way (9, p. 98):

It is clear, then, that we have been in the habit of using the terms *long* and *short* to express, not a difference in *duration*, but a difference in *quality*. The *length* of a vowel depends upon the fraction of a second which it takes to utter it; its *quality* depends mainly upon the shape of the resonance chamber.*

N. *Blend.* In general, blends are of two types: vowel-consonant and double consonant. The consonant blend, or double consonant, has been described above. A blend is a fusion of two or more phonetic elements without the loss of their identities.

When phonetic systems of teaching reading were at their height, two methods were devised: initial blend and final blend. In the initial-blend system, the blend was formed by the initial consonant sound and the following vowel sound. The vowel was always joined to the preceding consonant, or consonants, as in (*ha*)*t* and (*be*)*d.* For example, the teacher would pronounce several words—e g., *ta-ck, ta-p, ta-g*—and the pupils would be taught to identify the *ta* sound in all the words. The teacher, then, would write the words in a vertical column on the blackboard and the pupils would point to and pronounce the initial blend seen in each word Final consonant sounds would then be taught with words such as *ra-t, ba-t, sa-t,* and *pe-t.*

The protagonists of the initial-blend system defended it on three counts: First, initial consonant sounds cannot be pronounced without the succeeding vowel sound. For example, the sound of *b* is distorted to *buh* when an attempt is made to pronounce the consonant sound alone Second, the emphasis on the initial blend develops left-to-right habits of word attack. Third, in the dictionary, the syllable division is made after the vowel, not before it.

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* From Barrows and Cordts: *The Teacher's Book of Phonetics,* Boston, Mass.: Ginn and Company, 1926.

In the final-blend system, the blend was formed by the final consonant and its preceding vowel. The vowel was always joined to its succeeding consonant, or consonants, as in *h*(*at*) and *b*(*ed*) For example, initial consonant sounds would be taught by pronouncing several words—e.g., *s-and, s-ing, s-it, s-ad, s-un*—and the pupils would identify the *s* sound The final vowel-consonant blends, or families, would be taught by rhymes, such as *st*(*and*), *s*(*and*), and *b*(*and*) Visual discrimination activities involved the identification of "family" names such as *and, ick,* and *ill.*

As a result of research by Dr. Anna D. Cordts (39) and others, an effort was made to combine the initial- and final-blend methods. Neither blend was used exclusively because some words lend themselves to the use of the first method, others to the second method.

Sounding methods of phonics have given way to *pronouncing* methods The *synthesizing* of sounds into words (called the *synthetic method*) has given way to the *analysis* of *whole* words (called the analytic method). In recent teacher's manuals, the emphasis has been on the nonseparation, or whole word, method. II. *Phonetics and Phonics* These terms are often used interchangeably by teachers The term *phonetics* has been used for several generations to designate the science of speech sounds. Specialists in this field are called phoneticians Their chief interests lie in the field of speech sounds and the use of special symbols to represent these sounds. The International Phonetic Alphabet has been generally accepted as a means of representing speech sounds. Phonetics is a subject of study in speech courses. Every elementary-school teacher can profit from a course in phonetics taught by a competent instructor. In fact, "the Board of Education in England several years ago made phonetics a requirement in the preparation of elementary-school teachers" (146, p. 4).

Phonics is a term used to designate the

application of phonetics to the teaching of reading. Phonics is a mechanical aid to word recognition Phonics deals not only with the sounds of spoken words but also with the letters of our conventional alphabet The phonetician deals with the sounds of spoken words, the teacher, with the relationship of the spoken word to the written word

III *Sounds and Letters.* More than forty phonetic symbols are required to represent all of the vowel and consonant sounds in the English language Since our conventional English alphabet has only twenty-six letters, some of the letters must do double duty First, the same letter or combination of letters may have more than one sound For example, the letter *a* in *hat, hate, calm, ask, plague, tall,* and *care* represents different vowel *sounds,* the letter *x* in *box* and *exist* represents different combinations of sounds Second, the same *sound* may be represented by different letters or combinations of letters For example, note the spellings for the vowel sound (*e*) in *p(e)t, fr(ue)nd, pl(a)gue, l(ei)sure, s(ay)s, m(a)ny, s(ai)d,* and *br(ea)d.* In these words, two letters represent one sound (*uh*)*y,* (*th*)*in,* (*th*)*at, sti*(*ck*)*, si*(*ng*)*, (sh)a(ll), m(ea)t, s(ew), r(ai)n, fr(ie)nd, g(oa)t, t(oe)*

One of the pitfalls to be avoided in teaching phonics is the confusion of *sounds* with *letters* Teachers can profit from systematic instruction in hearing sounds. Pupils are often confused by the misleading statements and questions of teachers First, this is an erroneous request, "Point to the last sound in *say*" This, of course, is impossible The child may point to *letters* but not to *sounds Sounds* are heard, *letters* are seen

A second typ…of confusing request is this "Pronounce every letter in the word as clearly as you can " The teacher had intended to have each *sound* produced distinctly Letters have names and the teacher did not intend to have the child spell the word

Here is a third type of confusing statement: "The vowel *sounds* are *a, e, i, o, u,*

and sometimes *w* and *y.*" The fallacy of this statement is obvious because they are vowel *letters,* not *sounds.*

A fourth type of false statement goes like this, "*Sh, th, wh,* and *ng* are consonant blends " Only one elemental consonant sound is represented by each of these pairs of letters The two letters represent a *sound* not a *blend.* The child cannot hear the sound of *s* in *ship* or the sound of *t* in *thin* or *there.*

A fifth type of confusion is evidenced in this question, "What *letter* do you hear at the end of *jumped*?" The teacher should have asked, "What *sound* do you hear?" The child sees the letter *d* but hears the sound of *t*

A sixth way to confuse children is to ask them to find words within words that do not represent true sound values It is legitimate to teach children to note *at* in *hat* because the same *sounds* may be heard in both words However, there is no justification in having the children find *he* in *her, yes* in *eyes, all* in *shall, hoe* in *shoe,* and *now* in *know* One simply does not hear *he* in *her*

A seventh way to confuse pupils is to ask them to listen to or to pronounce the sound of *k* in *knife* or of *w* in *write.* Listening for the sounds of these silent letters is something like looking for the little man who wasn't there.

An eighth confusing practice is to distort the sounds of the initial consonants. For example, the teacher pronounces *bu-at* for *bat* or *ul-et* for *let* These distortions, of course, do not represent the sounds heard in the normal pronunciation of the word.

A ninth means of confusing pupils has been pointed out by Dr. John Samuel Kenyon (146, p 4).

To cite only a single instance of the present situation in our schools, the writer has repeatedly heard schoolteachers insist on the full pronunciation of the vowels in the unaccented syllables of words—a rule *which* neither they nor their pupils can follow in natural, unconscious speech One city teacher of high standing drilled her pupils carefully

to pronounce the noun *subject* with the full sound of the *e* as in *let*, and in the same recitation, after passing to another topic, herself repeatedly pronounced the same word naturally, with obscure *e* (ĭ), as is usual in standard English.

Confused statements and questions similar to those mentioned above contribute to pupil frustration. Both teachers and pupils should *hear* sounds irrespective of the letters used to represent those sounds. If phonics instruction is to be effective, the confusion must be taken out of it. Confusions of the above-mentioned types cannot be blamed on authors, administrators, supervisors, or parents. Teaching is one of the most responsible jobs in our nation; *not just anyone can do it.*

As pointed out by Dr. Sarah T. Barrows (8, pp. 3-10), there are several reasons for discrepancies in spelling. First, the pronunciation (our habits of speech) has changed continually but the printed form of a word has undergone very little change. Second, the composite character of our language has contributed to inconsistencies in spelling. Often a foreign word is introduced with the original spelling and an English pronunciation. Third, the first scribes were probably very poor spellers. Fourth, the English alphabet does *not* have *enough letters* to represent the *sounds* used. The assignment of more than one phonetic value to a letter complicates the situation. Fifth, the *same letter* may represent *more than one sound.* The unphonetic character of written words makes English spelling difficult and contributes to mispronunciations.

The following summary of facts regarding *sounds* and *letters* should be studied carefully.

1. Letters are visual symbols; sounds are oral symbols. Letters are seen; speech sounds are heard.

2. Letters represent speech sounds; speech sounds are represented by letters.

3. One letter may represent more than one speech sound.

4. One speech sound may be represented by more than one letter.

5. Letters may not reveal the speech sounds heard in a word.

IV. *Classification of Speech Sounds* Kantner and West (1:44, pp. 23-26) offer three approaches to the classification of speech sounds: acoustic, placement or position, and movement. All speech sounds usually are classified as vowels, semivowels, diphthongs, and consonants.

A. *What Is Heard* In the acoustic approach sounds are classified in terms "of the effect produced by these sounds upon the auditory mechanism." The sounds of vowels are described in terms of *stress*, "long" and "short", *weak* and *strong*, *high* and *low pitch*, etc., "although there is no clearcut acoustic classification."

1 *Consonants* The consonants are divided into two main classifications: sonants (or voiced) and surds (or voiceless). For example, the following pairs of consonants are voiced and voiceless equivalents Lewis (156, p 40).

Sonants (voiced)	*Surds* (voiceless)
b	p
v	f
w	wh
d	t
th (hard)	th (soft)
z	s
zh	sh
j	ch (soft)
g (hard)	k

When the two consonants are made in the same way but one is voiced and the other is voiceless, they are called *cognates*, or companion sounds. For example, *b* is a cognate of *p*. In the production of a voiced sound, the vocal bands vibrate; in a voiceless sound, the vocal bands do not vibrate. This may be studied by placing the finger on the larynx and noting whether a vibration is felt as the sounds are made. By holding the hand

before the mouth when these sounds are produced, it will be noted that the voiceless sounds require more breath force than the voiced sounds.

Consonant sounds may be voiced (or sonants) or voiceless (or surds). These two types of sounds may be divided into *plosives* and *continuants*.

a *Plosives* When the consonant sound is *stopped* abruptly in mid-channel, it is called a *plosive*, or stop. The sounds of the letters *p*, *b*, *t*, *d*, *k*, and *g* are plosives. Two—*b* and *d*—are sonants, or voiced; three—*p*, *t*, and *k*—are surds, or voiceless.

In sounding the plosives, the breath is compressed by a stoppage in the mouth and then is released to make an explosive sound. The stoppage for the preparatory sounding of *p* and *b* is made by pressing the lips together; for *t* and *d*, by pressing the tongue against the teeth ridge; for *k* and *g*, by pressing the back of the tongue against the soft palate. It will be noted that the plosives are formed by a preparatory movement to produce a complete block, by an increase in pressure, and by a forcible release as the block is removed.

b *Continuants* When the consonant sound is *prolonged* as long as the breath lasts, it is called a *continuant*. That is, the breath is not completely stopped. The plosives, or stops, are the sounds of *p*, *b*, *t*, *d*, *k*, and *g*; all other *consonant* sounds are continuants. The continuants are usually classified as *fricatives*, *nasal resonants*, and *lateral consonants*.

A *fricative* is made when the continuant flows through a narrow air passage in such a manner that the escaping breath causes friction, or makes a frictional sound. To produce *f* and *v* sounds, the breath comes out between the bottom lip and the top teeth; to produce *th* (voiced or voiceless), between the raised tongue tip which can be seen and behind the top teeth, to produce *s*, *z*, *r*, between

the raised tongue tip and the top teeth ridge, with the tongue tip almost touching; to produce *sh*, *ch* (as in *pleasure*), *ch* (as in *peach*), and *j* (as in *juice*), when the blade of the tongue brought near the back of the teeth ridge and the front of the hard palate

When the mouth passage is closed at some point and forces the sound through the nasal passage, the sound is called a *nasal continuant*, or nasal consonant The nasal continuants are represented by the letters *m*, *n*, *ng*.

The nasals are sometimes called semivowels for two reasons (7, p. 47): First, the unrestricted passage of the air through the nose causes them to resemble vowels Second, the blocking of the air passage in the mouth causes them to resemble consonants. The *m* sound is produced by closing the lips to block the mouth cavity; the sound of *n*, by contacting the tongue tip at the ridge of the upper teeth and gums; the sound of *ng*, by contacting the back of the tongue at the back wall of the mouth cavity.

When the continuant is formed so that the sound flows off the sides of the tongue, it is called a *lateral consonant* In forming a lateral, the middle passage is closed by the tip of the tongue against the teeth ridge. The *l* sound is a lateral

2 *Diphthongs* A diphthong is a combination of two vowels closely blended into one. These two vowel *sounds* may or may not be represented by two letters in English. For example, note the diphthong in *(ea)ste*, *b(y)*, *b(uy)*, *I*; *d(aw)*, *p(u)p(i)l*, *(u)nit*; *n(ot)*. Kantner and West (144, pp. 109–110) recommend the use of the term *diaphone* rather than *diphthong*. According to these authorities, the term *diaphone* indicates interdvowel glide sounds and means "through a sound."

B *Position*, or *Placement*, *of Articulatory Mechanism* A second means of classifying speech sounds takes into consideration

the position of the articulatory mechanism in producing a sound. This classification involves the position of the tongue, soft palate, mandible (jaw), and lips.

1. Vowels. A vowel is a voiced sound made with the tone passage open and free from obstruction.

When vowels are classified according to the *part* of the tongue used, these terms are employed: *front, mid,* and *back* vowels, depending on whether they are made with the front, middle, or back of the tongue. The front of the tongue is raised in producing *the* vowels in *ere, ate, end,* and *at;* the middle of the tongue in *urn;* the back of the tongue in *ooze, book, obey.*

When vowels are classified according to the *position* of the tongue, these terms are used: *high, half-high,* and *half-low.* This classification describes the position of the tongue in producing the vowels. The tongue is high in the mouth when *ee* is produced; half high, when *oh* is produced; and low when *aw* is produced.

2. Consonants. A consonant is a sound made by obstructing the tone and not allowing it free passage through the mouth. The consonants may be classified in terms of the positions of the articulatory mechanism, or place of articulation.

Labials are consonants modified by the lips. The sounds of *b, p, m, w,* and *wh* are bilabial sounds because the two lips form them. The teeth-lip consonants, called *labio-dentals,* are formed by the teeth and lips. These include the sounds of *f* and *v.*

Dentals are consonants whose sounds are modified by the teeth. These include the sounds of *s, z, t, d, r, n, th* (voiced), and *th* (unvoiced). The voiced and unvoiced sounds of *th* are teeth-tongue consonants, sometimes called *lingua-dentals,* or, sometimes, *dentals.* The sounds of *d, t, s,* and *n* along with *l* are called front-of-tongue

EVALUATING THEIR BOOK

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consonants, or *alveolar* (or gum) sounds. The sounds of *s* and *z* along with *sh*, *zh*, *ch*, and *j* are called *sibilant fricatives* (or hissing sounds).

Palatals are consonants whose sounds are modified mainly by the tongue and hard palate. These include the sounds of *ch*, *j*, *sh*, *zh*, *r*, *j*, and *l* The sound of *y* is a mid-tongue palate sound, it is the only front palatal sound in English

Gutturals are consonants whose sounds are modified by the palate and back of tongue. These include the sounds of *k*, *g*, *ng* These are the back-tongue palate consonants, sometimes called velar, or soft-palate, sounds

Glottal sounds are those produced in the glottis. The aspirate sound of *h* is the only legitimate glottal sound in English. The sound of *h* is a breathed consonant which has no corresponding voiced one

The consonants have been classified this way: lip consonants (*b*, *f*, *m*, *p*, *v*, *w*, *wh*), tongue consonants (*d*, *j*, *l*, *n*, *r*, *s*, *t*, *y*, *z*), and palate consonants (*k*, hard *g*, *x*)

3 Semivowels Consonants are formed by obstructing the flow of breath in the mouth cavity, a vowel sound is an open sound made with the open throat, teeth, or lips When a continuant flows so freely that it sounds like a vowel it is called a *semivowel*, or *vowel-like consonant*. The semivowels are *w* and *y*

C Types of Movement Involved This third classification of speech sounds is based on the types of movements involved. Hence, this classification tends to overlap that based on the position of the speech mechanism The terms *continuant*, *stop*, and *glide* are used to describe movement

Kantner and West offer this classification of speech sounds based on the types of movement involved (144)

Continuants
Vowels
Continuant consonants
Nasals

Stops
Plosive consonants
Glides
Intervowel
Interconsonantal
Internasal

The continuants and stops were discussed above. At this point a few comments will be made on *glides* A glide is simply a transitional sound. It is an uninterrupted movement of the articulatory mechanism as a transition is made from the position required for one sound to that required for another. A glide may be either voiced or voiceless

Barrows and Cordts offer this explanation of glides (9, p 75):

The tongue, amazingly facile as it is, cannot move with sufficient rapidity or with sufficient precision to prevent the formation of unintentioned sounds It is only in the case of an isolated sound or of an initial sound in a phrase that the tongue starts from a position of rest As the tongue hurries from one position to another it takes perforce intermediate positions, and since each adjustment of the speech mechanism results in the production of a definite sound, there are speech sounds arising from these intermediate positions. These attendant sounds are called *glides* *

Intervowel glides are of two types, *receding* and *approach*. In the *receding* vowel glide, the first vowel value is stressed and the second is unstressed Examples (*i*)*ee*, *h*(*ow*), (*a*)*le*, *b*(*oy*), *f*(*ar*), *h*(*ull*) It will be noted that diphthong sounds may be represented by one letter as well as two letters In the *approach* vowel glide, the first vowel value is unstressed, the second, stressed Examples (*ui*)*n*, *ne*, (*ye*)*s*.

Kantner and West state (144, p 172).

Continuant consonants, like vowels, may be connected by a glide type of movement, especially if the positions of the two sounds are close together These may not be glides in quite the same sense as those that occur between vowels, but at least they are based

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* From Barrows and Cordts The Teacher's Book of Phonetics Boston, Mass Ginn and Company, 1926

on the same general principle of economy of effort.

Examples: *fifths, lives, paths.*

Kantner and West also indicate the possibility of internasal glides (144, p 177). They cite examples of certain pronunciations of *coming, singing,* and the like.

V. International Phonetic Alphabet. The English alphabet has several disadvantages. First, there are only twenty-six *letters* and there are at least forty different *sounds.* Second, the same *letter,* or combination of *letters,* sometimes is used to represent different *sounds.* For example, the *letter c* has one *sound* value in *cat* and another in *city.* Third, the same *sound* may be represented by different *letters.* For example, *sound* of *k* may be represented by *c* (cat), *q* (quick), or *ch* (ache). Fourth, some letters are used in spelling but they do not represent *sounds.* Note the silent *e* in *kite* and the silent *k* in *know.* It is, indeed, very easy to confuse *letters* with *sounds.*

This lack of correspondence between letters and sounds has been misleading. Systems of diacritical marks have been used in dictionaries as an aid to correct pronunciation. These systems, of course, are based on letters.

The problem, then, is to devise a system in which one sound is represented by one letter and one letter represents only one sound. Several prominent phoneticians from several countries got together and devised the International Phonetic Alphabet (IPA). This alphabet has been generally accepted for several reasons: First, it can be used satisfactorily in dealing with the sounds of all languages. Second, the phonetic alphabet shows a one-to-one, or true, relationship between *sounds* and *letters.* That is, one symbol represents only one sound. Third, the alphabet shows the true relationships between sounds. Fourth, the alphabet differentiates between the real length and the quality of vowel sounds. Fifth, the alphabet makes it possible to record speech sounds as they are actually produced. After reviewing these advantages, it is easy to understand why this International Phonetic Alphabet has been generally accepted.

By special permission of the G. & C. Merriam Company and the American Book Company, a very helpful organization of the International Phonetic Alphabet is presented on page 630. This may be found on page vii of *Webster's Student Dictionary,* published by the American Book Company and copyrighted by G. & C. Merriam Company

VI. Consonants and Vowels. The following classifications of consonants and vowels will facilitate the reading of the succeeding discussion on consonants:

A. The vowel letters are *a, e, i, o, u,* and sometimes *w* and *y.*

B. Vowel digraphs include *au, au, ai, ay, ee, ea, ew (drew), ie, oa, oe, oo (shoot), ue (true),* and *oo (so-called short and long)*

C. Diphthongs include *oi, oy, ou (out), ow (out), cw (face), i (mine), y (my),* and *u (tune).*

D. The consonants are *b, c, d, f, g, h, j, k, l, m, n, p, q, r, s, t, v, x, y, z*

E. Consonant digraphs include *sh, ch, ng, wh, ph, th (thin), th (that), gn (gnaw), wr (write).*

F. Consonant blends or double consonants include: *ch, tch, nk, st, ts, str, tr, pl, bl, spl, x (box and exit), g (gem), j (joy)* and *gu (quack).*

VII. Sounds Represented by Letters. The following information has been compiled to call attention to the differences between *letters* and *sounds.* In teaching phonics and structural analysis, the teacher is advised to consult the dictionary frequently. Since teachers are not expected to be expert phoneticians and lexicographers, they should have no hesitancy in referring children to the dictionary when questions arise in class. Primary-school children will be impressed with the interesting information the teacher can find for them in the dictionary. By consulting the dictionary, inexperienced teachers may avoid such blunders as asking the children to pronounce a *b* sound in *climb,* an *n* sound in *went,* the final *d* sound in *cropped,* an *f*

THE ALPHABET OF THE INTERNATIONAL PHONETIC ASSOCIATION (IPA)

The following symbols have each the sound values shown in the key words. The IPA symbols and words are printed with them are in square brackets [ ]

CONSONANTS

[p]	in prop	[tʃ]	in church
[b]	bib	[dʒ]	judge
[m]	maam	[f]	fife
[t]	tot	[v]	valve
[d]	dud	[θ]	thin
[n]	noon	[ð]	then
[k]	cook	[s]	cease
[g]	gag	[z]	zones
[ŋ]	sing	[ʃ]	motion
		[ʒ]	vision

[l]	in lull	[w]	in wail
[r]	roar	[hw]	whale
[h]	hah	[j]	you

Note: The occurrence in printing the symbol [ɑ] may be substituted for [g]

VOWELS

[i]	in beet	[ɪ]	in bit
[e]	chaotic	[ɛ]	set
[æ]	cat	[a]	pronounced as in south ern England and in parts of southern America (only in stressed syllables)
[ɑ]	father, such as often pronounced in America (between [æ] and [ɑ])	[ə]	pronounced as in the [a] of the majority of Americans in unstressed syllables
[ɔ]	serve as pronounced without [r] in America (between [ə] and [ʌ])	[ʌ]	butter as pronounced in America (between [ə] and [ʌ] in unstressed syllables)
[o]	obey		
[u]	boot		
[ʊ]	pull		
[ɜ]	used only in stressed syllables		

DIPHTHONGS

[a]	in sofa only in unstressed syllables	[aɪ]	in buy

Note: [ə] is not a symbol of the IPA, which at present has no unambiguous symbol for the sound

[aɪ]	in bee	[aʊ]	in how
[eɪ]	in hay		

[oʊ] in note the symbols [aʊ], [eɪ], [oʊ] are used when the first element is [ɑ] as in use, instead of [u]

Note: [eɪ] and [oʊ] given above as pure diphthongs, the usual sounds of long a and long o (see §§ 5, 60)

[ɜː]	as in German ich and Scottish loch; bah, Dietz] (§ 66)		
[x]	= ch in German ach and Scottish loch [bɑx] (§ 66)		

NON ENGLISH CONSONANTS

NON ENGLISH VOWELS

[y]	in French peu, German fühlen [§ 127]
[ɥ]	French ferveur, German Goethe [§ 117].
[œ]	French œuf, German kœnnen [§ 117]

The symbols [y], [œ], [ɔ], [ɥ] represent l, m, n, and r sounds that in certain positions either alone or with other sounds, as [hərt] are syllabic, as in harden [hɑrdn], sudden [sʌdn], little [lɪtl], paddle [pædl], bottle [bɒtl].

The colon [ː] after a symbol indicates that its sound is long in duration. [ɑ] indicates an intermediate length vowel or a nasalized vowel, or that such is used as intermediate length

The dot [·] after a vowel symbol [eɪ·], [oʊ·] indicates a prolongation or part of the sound being more closely. [-] indicates a lowered tongue, [-] as [æ], with slightly advanced tongue, and [-] as [æ], with slightly retracted tongue.

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SUMMARIZING A UNIT

Faye Bonham, Maryruth Zimmerman   Berwick, Pa.

The letter k

1 *K* is a voiceless explosive called a surd

2 *K* before *n* is silent Examples *know, knife,* and *knee*

3 Before *a, o, u,* consonant *k* is represented by *c* Examples *cat, cot,* and *cut*

4 *K* rather than *c* is used after a *long* vowel Examples *take, rake,* and *bake*

5 *Ck* is used to represent the sound of *k* after a "short" vowel Examples *tack, rack,* and *pack*

6 Dr Sarah T Barrows ably summarizes the letters used for the *sounds* of *k* (8, p 5)

The sound *k* may be represented not only by [the letters] *c* and *k,* but by *q* as in

quite, and *ch* as in *ache*. We even use both *c* and *k* together to stand for *k* as in *sick* Last but not least in absurdity we sometimes write the two sounds of *k* and *s* by *x,* as in *six.* The two words *tax* and *tacks* are identical to the ear though not to the eye.

The letter l

1 *L* is a voiced continuant

2 *L* is silent in such words as *would, talk, walk,* and *palm*

3 Sometimes *l* functions both as a consonant and a vowel sound, as in *cattle* and *bottle*

4 Note the spelling of *l* in *bott(le), flann(el), musc(al),* and *fulfi(ll)*

The letter m

1 *M* is a voiced nasal

2 *M,* like *l,* may function both as a consonant and vowel sound, as in *prism* and *spasm*

The letter n

1 *N* is a voiced nasal

2 A final *n* after *m* is silent. Examples *hymn, column*

3 *N* like *m* and *l* may function as a consonant and vowel sound, as in *cotton* and *often*

The letter o

1 *O* preceded by *w* has the same sound as the letter *u* Examples *won, work,* and *worry*

2 The following terms are used to designate the sound, or tone, values of *o*

"Long" *ō bōat, cōld* (diacritical mark macron)
"Short" *o ŏn, lŏt* (diacritical mark breve)
Circumflex *ı̂ or, fôr* (diacritical mark circumflex)
"Long" *oo fōōd, shōōt* (diacritical mark macron)
"Short" *oo lŏŏk, fŏŏt* (diacritical mark. breve)

The letter p

1 *P* is a voiceless explosive

2 *P* is the voiceless equivalent of the voiced *b*

3 *P* is silent in such words as *receipt* and *psalm*

The letter q

1 *Q* is used only with *u* and represents the sound of *kw*. Examples: *quack, quick, quiet,* and *quite*

The letter r

2. *R* is a voiced continuant.

2. When *r* is preceded by a vowel, it is blended with the vowel to form what is commonly called a "murmur diphthong." Examples: *her, sir,* and *ear.*

The letter s

1. *S* is a voiceless continuant, also called a surd.

2. *S* is the voiceless equivalent of the voiced *z.*

3. The *letter s* is an unphonetic character. The *sound s* may be written in several ways. letter *s* as in (*s*)*ame;* letter *c* as in *ni*(*c*)*e, redu*(*c*)*e;* letters *ss* as in *po*(*ss*)*ible,* letter *z* as in *quart*(*z*); letters *st* as in *li*(*st*)*en,* letters *ps* as in (*ps*)*alm,* letters *sc* as in (*sc*)*ene.*

4. *S* has the sound of *sh* in such words as *sure* and *sugar.*

5. The letter *s* is silent in such words as *isle*

The letter t

1. *T* is a voiceless explosive called a surd.

2. *T* is silent in such words as *often, listen,* and *castle.*

The letter u

1. When "long" *u* or its equivalents (*ew* or *ue*) follows *r* or *j,* it has the sound of "long" ōō Examples *rule, rude, June, jumper,* and *junior.*

2. When "long" *u* follows a consonant and *l,* it has the sound of long *oo.* Examples. *blue, blew, fluent,* and *flute.*

3. The following terms are used to designate the sound, or tone, values of *u*

"Long" *u ūse, cūte* (diacritical mark: macron)

"Short" *u· ŭp, bŭt* (diacritical mark. breve)

Circumflex u· *hûrt, fûr* (diacritical mark: circumflex)

The letter v

1. *V* is a voiced continuant, called a sonant.

2. *V* is the voiced equivalent of the voiceless *f.*

The letter w

1. The consonant *w* is a voiced continuant, called a sonant

2. The consonant *w* is always used before a vowel. Examples: *wash, wet,* and *wet.*

3. Note the use of the letter *w* in *now* and *bow* (diphthongs) and in *slow, show,* and *know* (vowel digraphs)

4. *W* before *r* is silent. Examples. *write* and *wretch*

5. The dictionary respelling of *who* is hōō; of *whose,* hōōz; of *whole,* hōl.

6 The dictionary respelling of *why* is hwī; of *white,* hwīt.

The letter x

1 In such words as *fox* and *ox, x* has the voiceless sounds of ks

2. In such words as *exist* and *exit, x* has the sounds of voiced gz

The letter y

1 The consonant *y* is a voiced consonant.

2 The consonant *y* is used at the beginning of a syllable Examples *yes, youth,* and *yesterday*

3 *Y* is usually the vowel equivalent of *i* when used within a syllable (examples *tryst* and *myth*) or at the end of syllable (examples *sky, pry,* and *my*)

The letter z

1 *Z* is a voiced continuant, called a sonant.

2 *Z* is the voiced equivalent of the voiceless *s*

3 The sound of *z* is written differently in *zeal, puzzle, is, discern, beaux.* Note the different of *z* in (*z*)*ust,* (*z*)*ist, hin*(*z*)*e, o*(*d*)*z*)*ure,* and *ju*(*dg*)*e.*

VIII. *Silent Letters.* The following is a summary of information on silent letters:

b after *m.* Examples: *climb, lamb.*

b after *t.* Examples: *doubt, debt*

Final *e·* Examples. *hate, note.*

g before *n,* initial Examples: *gnaw, gnash.*

g before *m* and *n,* final Examples: *sign, phlegm.*

gh after a vowel. Examples: *sigh, caught.*

k before *n* Examples· *knee, know.*

l in such words as *could, calm,* and *walk.*

w before *r.* Example: *write.*

IX. *Vowels.*

A. Each of the vowels *a, e, i, o,* and *u* has more than one sound.

B A vowel is an unobstructed sound, called an open sound because it is made with open throat, mouth, teeth, and lips

C. Vowels have no constant value. For example, note the value of a in *hate*, *heat*, and *hat*.

D It has been stated that about sixty per cent of the vowels used are "short."

E In unaccented syllables vowels are usually modified.

F. Dr. Anna D Cordts (39) listed the following "short" vowels in the order of their importance. a, ı, e, u, and o

X. *Vowel Digraphs.*

A The vowel digraph *oo* represents the "short" and "long" sounds as in *look* and *moon*

B. *Aı, ay, ee, ea, oa, oe, ow, ue*, and *ew* are usually "long" vowel equivalents

C In vowel digraphs *b(oa)t*, *r(ea)d* (present tense), *f(ae)l*, *f(ea)t*, *sh(ow)*, and the like, the first vowel "says its own name" and the second vowel is "short" In words such as *f(ıe)ld* and *gr(ea)t*, the second vowel "says its own name" and the first vowel is silent In words such as *f(ea)ther*, *v(eı)n*, *w(eı)gh*, *l(au)gh*, *br(ea)d*, *ag(aı)n*, *b(uı)ld*, *th(eı)r*, *(eı)rn*, and *t(au)ght*, neither vowel "says its own name "

XI. *Consonants* The following statements gathered from research studies and from the statements of phoneticians, educators, and psychologists are of interest to teachers at all grade levels

A. Consonants are formed by the obstruction of the breath stream as it flows through the mouth

B. Consonants are viewed as attacks or releases of vowels, which means that the consonants are to be pronounced with vowels. In speech, a consonant sound is usually combined and uttered with a vowel sound

C Consonants are classified as *oral* (those made in the mouth), *s, l, b, r*; and *nasal* (those made in the nasal cavities), *m, n, ng*

    1. Oral consonants are classified as stops and continuants, which may be breathed or voiced

    2. All nasal consonants are voiced continuants.

D. There is no definite line of cleavage between consonants and vowels. For example, *w* is a consonant sound in *won* and a vowel sound in *how*, *cow*, and *now* And again, *y* has consonant value in *yard* and vowel values in *dry* and *pry*

E When double consonants occur, the last one may be silent. Examples: *tell*, *back*

F Whereas vowels are always voiced, consonants may be either voiced or breathed

G Eight consonants have only one sound *b, h, j, l, m, p, t, t*. Nine consonants have two or more sounds: *c, d, f, g, n, r, s, x, z*.

XII *Consonant Blends and Digraphs.*

A The consonant blend *ch* and the consonant digraphs *sh, ng, th*, and *wh* represent sounds peculiar to themselves.

    1 *Th* is voiced in such words as *then*, *there*, and *their*

    2 *Th* is voiceless in such words as *thin* and *thick*.

B The consonant blend *tch* has the sound of *ch* and is usually used after a "short" vowel. Examples: *watch*, *catch*.

C The consonant digraph *ch* has the sound of *k* and is usually used after a "short" vowel Examples: *tack* and *back*.

D. The consonant blend *nk* has the same sound as *ngk*. Examples: *tank*, *blank*, and *banker*.

E *N* before *g* usually has the sound of the nasal *ng* Examples *linger* and *finger*. In such words as *bring* and *sling*, *ng* has the regular nasal sound

F. *Zh* is represented by the letter *s* in *pleasure*, *z* in *azure*, and *sı* in *fusion*.

G *Gh* after a vowel is silent. Examples: *sigh*, *high*, and *caught*.

H. *Ph* has the sound of *f*. Examples: *phase*, *photo*, and *phone*.

PRINCIPLES

The following principles of phonics are summarized here for the convenience of the teacher:

"*Short*" *Vowels.* Vowels are usually "short" in closed syllables. A closed syllable is one ending with a consonant.

This principle is also stated: Vowels are usually "short" except when modified by position. Or, if there is only one vowel in a word or syllable and it is followed by a consonant, the vowel is usually "short." Or, when a syllable ends in a consonant, its vowel is usually "short." Or, a stressed vowel, followed by one or more consonants in the same syllable, is "short." Or, when there is only one vowel in a one-syllable word and it isn't at the end, it is usually "short." In English, the "short" vowel sounds predominate. Examples: *hat, cot, sit, pet, hut.*

Final e. In a short word ending with a final *e*, the *e* is usually silent and the preceding vowel is "long" (or "says its own name"). Or, final *e* lengthens the preceding vowel. Another variation of this principle is stated: When there are two vowels in words of one syllable, usually the first is "long" and the second is silent. This second statement covers also one type of vowel digraph situation Or, a stressed vowel, followed by a consonant and silent *e*, is usually "long," but this rule does not hold good with reference to a final syllable like *ire* or *ite*, which ordinarily contains a "short" vowel. Examples: *ate, hope, compete, site, cute.* Exceptions include *give, done, some.*

Vowel Digraphs. When the two vowels of a word are together, the first vowel is usually "long" and the second vowel is silent. Stated another way: In vowel digraphs, the first vowel *usually* has its own "long" sound and the second vowel is silent. Or, in *most* vowel digraphs the first vowel has its own "long" sound and the second is silent. Examples: *boat, beet, brat, show.* Exceptions include: *cows, field, great, feather, head.*

Open Accented Syllables. In open accented syllables the vowel is usually "long." Or, a single vowel in a word or a syllable not ending with a consonant is usually "long." Or when a syllable (stressed) ends in a vowel, the vowel is "long." Or, a stressed vowel, not followed by a consonant in the same syl-

lable, is "long." Examples: *agree, stupid, acorn.*

Final y. The final *y* in words of more than one syllable is usually "short." Or, final *y* in words of more than one syllable usually has the sound of "short" *i*. Examples: *happy, city, sleepy.* Exceptions include: *reply, supply.*

Murmur Diphthongs. A vowel followed by *r* has a modified sound. Or, in words or syllables containing only one vowel which is followed by *r*, the sound of the vowel is controlled by the *r*. Examples: *sir, her, fur, for, burst.*

A Followed by l or w. In words or syllables containing only one vowel, *a*, followed by *l* or *w*, the *a* is neither "long" nor "short" *A* followed by *l* usually has the sound of *au* as in *Paul*, or *aw* as in *paw* Examples: *ball, tall, talk*

Soft c. C is soft before *e*, *i*, and *y*; otherwise, it is hard. Examples: *city, ceiling,* and *cypher.*

Soft g. G is usually soft before *e*, *i*, and *y*; otherwise it is hard. Examples: *gem, gist,* and *gypsy.*

PROCEDURES

Suggestions to Teachers. The chief purpose of guidance in the development of phonetic analysis skills is to give the child one additional means of word attack. *Phonics is only one aid to word recognition in reading situations.* The history of American reading instruction is a review of the rise of interest in phonetic analysis as the means of word recognition and subsequent attempts to establish its role in the total language program. It is entirely too easy for the teacher to bog down in the minutiae of methodology and to neglect the major goals of education, including personality development and preparation for citizenship. The teacher can avoid the bogs by careful professional preparation which allows her to view the minutiae with a better perspective. In short, the teacher must have a working knowledge of phonetics and a sense of values regarding the uses and limitations of phonetic analysis in reading instruction.

Facility in the use of phonetic analysis as one aid to word recognition will be promoted to the degree that the instruction is uncomplicated, direct, and systematic. A highly complicated system of phonetic analysis may serve only to confuse the child and to overemphasize this one aid to recognition. These three suggestions should be heeded by the teacher

I. Provide help in phonetic analysis at a time when the learner has a problem to be solved by that means. This means that word-recognition needs will be identified during the introductory, or silent, reading of a selection, the unrecognized word is first noted in context. In general, previously learned word-recognition techniques—such as analysis of context and noting of configuration—should be applied first.

II. Organize the activities so that the pupils are not confused by differences between letters and sounds. Pupils should gradually learn that sounds are represented by different letters and that the same letters represent different sounds

III. Develop visual analysis skills in this sequence in order to insure proper achievement for the pupils auditory discrimination between specific speech sounds, auditory perception of specific speech sounds, recognition of relationship between the sound of word elements and the letters representing the sounds (visual-auditory perception), visual perception. That is, the pupils first listen for likenesses and differences between speech sounds—e g , (m)ade, (m)ake, (n)ame, they identify specific speech sounds—e g , (d)og, (d)oll, (d)oor, they see the relationship between the sounds and the letters representing the sounds—e g , (c)ap, (c)at; (k)itten, (k)ite, and they learn to make a rapid visual analysis of word forms for recognition purposes in silent reading situations When a given principle is involved—such as the final e principle—the children are guided in discovering the principle by the examination of words conforming to the principle, they are encouraged to find words

to which the principle applies; they experiment with modification of the word—e g , hat, hate, heat; cheat, heat—to learn how sound values and meanings are represented, and they are given opportunities to apply this principle in introductory, or silent, reading situations.

A Directed Reading Activities. In situations where basal textbooks are used almost exclusively, the teacher will be concerned with the basic principles of a directed reading activity. (See chapter on Directed Reading Activities.) These principles apply in all situations where basal textbooks are used: reading, science, social science, and mathematics The most effective use of basal textbooks may be made in this type of situation by grouping the children in terms of their instructional levels. (See chapter on Discovering Specific Reading Needs) To be placed in a given group, the child should be able to read the material under consideration. That is, the silent reading should be achieved without vocalization and finger pointing, comprehension should be high, and not more than one "new" word in twenty should be encountered. The oral rereading should be rhythmical and the child should read in a conversational tone This point of proper grouping cannot be overemphasized When the child is frustrated by material too difficult or too easy and by uninteresting material, the directed reading activity deteriorates into a mechanical process of stumbling word calling It is the teacher's job to develop an interest and facility in reading, not to teach bad habits.

1 Developing Readiness. The first step in a directed reading activity is the development of a readiness for a selection or grouping of selections This involves pointing up background of experience, developing working concepts, and stimulating interest. This does not involve isolated drill on the new vocabulary before the introductory reading When drill on new words is necessary

to keep the pupils from bogging down, the teacher should regroup. Interest and meaning, or the semantic identity of words, are the two factors of prime importance in developing reading ability. Many investigators have shown that excessive doses of word-recognition drill are not necessary in desirable learning situations. Hence, one way to reduce the emphasis on the mechanics of reading is to group the children in terms of their achievement levels and to prepare them for a given reading activity. One of the most important steps in developing reading vocabulary is this preparatory step.

2. *First, or Silent, Reading.* The second step in a directed reading activity is the introductory reading. This is always *guided silent* reading. Here the pupil meets the "new" reading vocabulary in its natural contextual setting. Careful preparation in step one and guiding questions and comments in this step two lead the child to anticipate meaning. During step two, the child is encouraged to form the habit of identifying unknown words. Individual needs are identified. Guidance in the application of word-recognition skills is given immediately on the spot. If the child cannot recognize the word by reading the rest of the sentence, then

he is taught to apply word-analysis skills. This is done quickly and without a lot of folderol. For example, the teacher may cover up part of the word to call attention to a known element. The second step, then, is the silent reading in which the child identifies unknown words and applies the word-recognition techniques learned to date.

3. *Specific Vocabulary Development.* Usually, the introductory, or silent, reading to get the wholeness of the selection is followed by systematic help on the word-recognition needs of the group. During the introductory reading, the teacher identifies these needs. In step three, the teacher calls attention to the "new" and other unknown words in context and systematically develops word-analysis skills, usually on the blackboard with plenty of pupil participation. With the contextual setting in mind, the pupils are not dealing with isolated words even though they may be written on the blackboard singly to call attention to initial consonants, final consonants, consonant blends, consonant digraphs, consonant-vowel blends, "short" vowels, final *e*, vowel digraphs, etc. In step three, the pupils are given systematic guidance in dealing with new word-recognition techniques. This is a group

GUIDING THE SILENT READING

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activity Additional help on individual needs is given in the follow-up activities.

4 *Rereading* The rereading—either silent or oral—may be done in a spirited manner along with the first reading (but always silent reading first!), immediately after the first reading, or following the silent reading and specific vocabulary development The procedure should be varied to meet the needs of the situation and to stimulate interest During oral rereading, the child is told words he cannot pronounce *If the preparation for the rereading has been adequate, few word-recognition needs should arise* In making this statement, the writer assumes that the children are grouped so that each is working at his own instructional level

5 *Follow-up* In step five, the pupils are given systematic guidance in their individual needs Up to this point, needs common to the group have been dealt with Some otherwise normal children may have difficulty with retention of word learning These should be singled out for tests of associative learning, memory span, and visual perception. If found low in these respects, they *may require* teaching by a kinaesthetic or a tracing method Too often, a child with a special type of reading disability is given a bigger dose of phonics than other pupils when he actually needs to be helped by other methods There is a grain of truth in the criticism that generally accepted methods do not help all children to learn to read. The typical method may be said to be a visual method. When the child is unable to learn by this typical method, he is out of luck To teach all children with normal or superior intelligence, the teacher must differentiate methods in terms of learner aptitudes

In any event, the follow-up should be designed to care for each child's needs Types of follow-up include discussion, direct explanation, organization of information, use of workbooks and specially prepared materials, use of flash cards, browsing, independent and group research activities, and independent reading.

B Experience Approach. When an experience approach is used, the class, group, and individual activities are developed around large areas, or units, of experience (See chapter on Initial Reading Activities and Developing Basic Abilities) While this approach has advantages in terms of motivation, interests, and meanings, it does have the possible disadvantage of less vocabulary control. Hence, a superior teacher is required to insure systematic growth in word recognition and concepts.

In this approach, the preparation, or orientation, is achieved by summarizing "What we know," "What we want to know," "Where we can find our information," and "New words we are learning" Excursions, experiments, arts and crafts activities, discussions, and the like are used to develop vocabulary by insuring adequate working concepts. In essence, the orientation for a unit of experience is like step one in a directed reading activity where basal textbooks are used

When the experience approach is used, the children are taught to read silently before reading to an audience. Guidance is supplied at all times as the children read under supervision. The child is helped to apply word-recognition techniques previously learned. The teacher, however, writes her own course of study in word recognition as the area of experience is explored. She has no teacher's manual to turn to for information regarding the sequence of word-recognition skills or the number of words containing certain common elements. The successful teacher, using this approach, must analyze the vocabulary developed to date, study analyses of general vocabulary lists to determine what elements are likely to be common to the reading vocabularies of the pupils,

and decide upon the sequence to be followed in the systematic development of word-recognition skills. Hence, in guiding the silent reading, the teacher systematically notes the universal needs of the group and individual needs.

Immediately after the silent reading, time is taken out to come to grips with the general vocabulary needs of the group. The children report their difficulties and those of general interest are cared for briefly in the group meeting. Through teacher and pupil discussion, the children are given help on specific items such as final *e* words, consonant blends, and the like. Examples are taken from the varied reading experiences of the pupils.

When the experience approach is used, the rereading may be in the form of a report to the class Hence, this rereading very frequently is done orally. This provides a check on the adequacy of instruction and assists the teacher in identifying individual pupil needs.

Individual pupil needs are cared for in very small groups and through individual materials prepared by the teacher or selected from commercial workbooks. This places a heavier burden on the teacher. However, experienced teachers have collected a variety of materials over a period of years and these have been filed in classroom cabinets where they are readily accessible.

C. *Techniques.* From the above description of procedures, it should be clear as to *when* the child is given help on his word-recognition needs. At this point, a listing is made of techniques. It will be noted that listening for the *sounds of letters* (auditory discrimination and perception) precedes looking for letters or letter combinations (visual discrimination and perception). Furthermore, the pupils are led to discover the rule or principle which applies

   1. Initial Sounds.

   a. *Listening for Beginning Sounds.* For example, the teacher pronounces *made* in a natural tone of voice. The chil-

dren are instructed: "Listen to the sound the words begin with."

Attention may be directed to likenesses and differences in the initial sounds of words in these ways:

The teacher says, "I will pronounce four words for you. One of them does not belong. If you are good listeners, you can tell which one of the four words begins with a different sound. All ready? Here they are: *back, bag, farm, bear.*" Other types of initial sounds may be used such as (*dr)ank,* (*dr)aw,* (*dr)ess,* (*dr)ink,* (*ch)art,* (*ch)ick,* (*ch)ildren;* (*cl)ean,* (*cl)imb,* (*cl)own.*

Or, the teacher says, "I will pronounce four words for you If you are good sound detectives, you can tell me which parts of each word sound alike Ready? Here we go· *dog, doll, door, down.*" Other types of initial sounds may be used such as *for, fun, fox; game, gate, gave.*

Or, the teacher may say, "I will pronounce a word for you If you are good at remembering sounds, you will give me another word with the same sound Ready? *hat.*" This may be continued with other words With beginners, the initial consonant sound is emphasized as in (*b)at* and (*c)atch.* As the children achieve higher levels of sound discrimination, consonant blends such as (*ch)urch,* (*str)ong,* (*tr)an, consonant digraphs such as (*wh)o, (*ph)one,* (*th)in,* (*th)at,* (*gn)aw,* (*wr)ite, and consonant-vowel blends such as (*ha)t,* (*ca)ke,* (*ga)me may be used.

After the children have gained approximately first-reader-level reading ability, the teacher may pronounce a series of words and ask the pupils to tell the initial *sound* heard When this procedure is used, the teacher must keep in mind the fact that the same sounds may be represented by different letters. Examples: *cap* (*k*), *cent* (*s*), *know* (*n*), *write* (*r*), *use* (*u*).

Then, again, the teacher may dictate a list of words. The pupils write the *letters* representing the initial

sound heard. Examples: *bell* (*b*), *door* (*d*), *farm* (*f*), *had* (*h*), *know* (*n*).

b *Making Alliterative Phrases* Attention may be directed to the initial sounds of words by presenting and by having the children make up alliterative phrases. Examples: *bad boy, big bag, patter patter, little lamb,* and *busy bees*

c *Completing the Sounds of Words* In this type of activity, the teacher pronounces in a natural tone of voice the initial sound or sounds of a word and the children give the word For example, the teacher may say, "I am thinking of something that John wears on his head It begins with the sound *ea* What is the word?"

d. *Matching Visual Symbols and Sounds* The teacher distributes two cards to each pupil in the group and pronounces a word in a natural tone of voice Each child reads his words and hands the teacher a card beginning a word that begins like the one pronounced. This procedure is continued until all of the words have been collected Usually only two or three initial sounds are used during the period. These are selected from the immediate reading vocabulary

e *Discussing How to Tell Words Apart.* When a new principle is introduced, time should be taken out to ask the pupils how they tell one word from another A few examples to facilitate discussion may be written on the board, such as

saw	on	big	he
was	no	boy	me

f *Collecting Words That Begin Alike* From a collection of old magazines or discarded books, the children can cut out words that begin like words in their immediate reading vocabulary Only words in the reading vocabulary of each pupil are used These words may be mounted on cards.

g. *Underlining Like Elements* The teacher writes on the blackboard—or uses duplicated material—two or three columns of words from the immediate reading vocabulary The pupils underline the initial letters that represent like sounds The following are examples of consonant-vowel blends (initial):

cat
can
catch

had
happy
hat

The following are examples of single consonant sounds (initial):

my
mother
morning

tap
tell
ten

The following are examples of consonant blends (initial):

chair	stop	tree
chick	story	train
children	stand	trick

The following are examples of consonant digraphs (initial):

the	shall	what
this	she	when
them	show	where
there	should	which

h *Crossing Out Words That Do Not Begin Alike* The teacher writes on the blackboard—or uses duplicated material—two or three columns of words from the immediate reading vocabulary The pupils cross out the word, or words, that do not belong in each column For example:

ran	fall
run	put
may	farm
red	find
ride	long

i *Matching Words That Begin Alike* Activities such as these may be used to call attention to words that begin alike.

Underline the words that have the same beginning sounds as *park*

pig	pull	put	quack

Fill in the circle under the words that begin with the same sound as *not.*

near   mice   new   no
O   O   O   O

Underline the word in each sentence that begins with the same sound as the word given.

let   We like our new books.
sat   We planted seeds today.

j. Substituting Initial Letters. The teacher writes several words on the blackboard that can be made into new words with a different initial sound but the same final sound; e.g., *boat, ball, band, box, book.* Then she says: "Pronounce each of these words. Do you hear the same *sound* at the beginning of each word? I will show you how to make other words by changing the first letter." These words are then written: *goat, call, sand, fox, look.*

2. Final Sounds.

a. Listening for Rhyming Sounds. For example, the teacher pronounces *say* and *play* in a natural tone of voice. The children are instructed. "Listen to the ending sound."

Or, the teacher may say, "I will pronounce four words. Three of them rhyme; one does not. If you are good listeners, you can tell which one does not rhyme. Ready? Here they are *bee, he, came, see.*"

Or, the teacher may say, "I will pronounce four words. Two of them sound alike. Listen for the two words that sound alike: *dear, boat, funny, hear.*"

Interested teachers may obtain considerable help on rhyming words by consulting the following two references:

Walker, J. *The Rhyming Dictionary of the English Language.* Philadelphia: David McKay Company (Revised and enlarged by Lawrence H. Dawson)

Wood, Clement. *The Complete Rhyming Dictionary and Poet's Craft Book.* New York: Halcyon House, 1941.

b. Listening for Ending Sounds. When the pupils are ready to distinguish between the *sounds* represented by the letters *ed,* the teacher pronounces a number of *ed* words. For example, the group may stand. When a child is given a word ending with sound *t* rather than *d,* he sits down Examples:

stopped (t)	dreamed (d)	lived (d)
worked (t)	milked (t)	dropped (t)
needed (d)	lassed (d)	landed (d)
puffed (t)		

c Recalling a Rhyming Word. For example, the teacher says, "One of our new words today was *play* With what old word does it rhyme?"

d Listing Words That End with the Same Sounds The teacher lists on the blackboard words given by the children For example, the teacher may write *tree* on the board and children contribute words to be written in the column, such as *free, knee,* and *bee.*

e Collecting Words That Rhyme. From a collection of old magazines or discarded books the children cut out words that rhyme with words in their immediate reading vocabulary. Only words in the reading vocabulary of each pupil are used. These words may be mounted on cards.

f Underlining Like Elements. The teacher writes on the blackboard—or uses duplicated material—two or three columns of words from the immediate reading vocabulary. The pupils underline the parts of the endings that sound alike. The following are examples of vowel-consonant blends (final):

all	at
call	sat
tall	cat
ball	hat

The following are examples of single-consonant sounds (final):

pet	bed
sit	glad
bat	had
hut	said

The following are examples of consonant blends (final):

march	first
scratch	fast
catch	best

The following are examples of consonant digraphs (final)

wish	trick
wash	black
splash	clock
brush	back

g Crossing Out Words That Do Not End Alike The teacher writes on the blackboard—or uses duplicated material—two or three columns of words from the immediate reading vocabulary The pupils cross out the words that do not end (i e , *sound*) alike For example

man	may	and	call
can	made	hand	tall
came	day	said	ball
ran	play	band	shall

h Matching Words That Rhyme Activities such as these may be used to call attention to like endings·

Underline the words that go with *let*

bet   set   met   pet   cat

Fill in the circle under the words that go with *name*

same	came	some	game
O	O	O	O

Underline the word in each sentence that rhymes with the word given

he   Come to me
old   It is a cold day

i Substituting Final Letters This is a very good technique for calling final letters and their sounds to the attention of children The teacher writes a word (e g , *cap*) on the board and asks the pupils to pronounce it Then she writes another word (e g , *cat*) and asks for both *cap* and *cat* to be pronounced The pupils indicate which parts of the words do not sound alike

3. *Final e.*

a. *Discovering the Rule.* From the children's reading vocabulary, the teacher collects a list of final *e* words. The children pronounce the words, count the vowels in each, and indicate which is silent and which is "long." Examples: *ate, bite, rode, kite, cute.*

b *Finding Words to Which the Rule Applies* Sentences are prepared in which the reading vocabulary of the pupils is used In each sentence, one word has a final *e* The pupils read the sentences silently to identify the final *e* word Examples.

John came back too soon.
We have a bird in our new *cage*

c *Changing Words by Adding e* The teacher writes a list of words on the board that can be made into new words by adding a final *e.* Examples:

at	ate
hat	hate
hop	hope
hid	hide

e *Editing Sentences.* In this type of activity, the pupils cross out the wrong word Examples:

Cross out the word that does not belong in each sentence.

John has a new   hat.
                 hate.

Kitty   at   the ice cream.
        ate

4 *"Short" Vowels.*

a *Substituting Vowels.* In this type of activity, the pupil makes a new word by substituting one "short" vowel for another Examples:

bed, bad, bud
sit, sat, set
but, bat, bet

b *Listening for "Short" and "Long" Vowels.* The teacher writes several words on the blackboard Each word is pronounced by a pupil, and the group decides whether the vowel has a "short" or "long" sound Ex-

amples: *at, ate, bag, bake, band,* for the sounds of the letter *a; big, fine, dish did, fish, lion,* for the sounds of the letter *i;* etc.

c. *Observing Differences in Vowel Letters.* To call attention to the medial vowel, sentences of this type may be used:

Bob does not wear a *hat* on a *hot* day.

d. *Filling in Gaps.* The teacher writes parts of words on the blackboard and the pupils write the whole word. Examples:

b_ll (ball), c_n (can), c_p (cup).

e. *Editing Sentences.* The teacher duplicates sentences containing two alternate words. The pupils cross out the wrong word. Examples:

Bob $\begin{matrix} at \\ ate \end{matrix}$ his cake.

We used one $\begin{matrix} cup \\ cap \end{matrix}$ of flour.

Tike had $\begin{matrix} fun \\ fan \end{matrix}$ at the party.

f. *Detecting Like Elements.* The pupil is given materials similar to the following:

Look at the first word and pronounce it to yourself. Draw a line under one of the next three words that has the same vowel sound.

big			
can	bite	pie	pig
	came	cap	cage

5. *Vowel Digraphs.*
a. *Discovering the Rule.* From the pupils' reading vocabulary, the teacher collects a list of words containing vowel digraphs. The children pronounce the words, count the vowels in each one, and indicate which vowel is sounded and which one is silent. Examples: *train, boat, say, toe, show.*
b. *Finding Words to Which the Rule Applies.* The teacher prepares sentences using the reading vocabulary of the pupils. In each sentence is a word containing one vowel digraph. The pupils read the sentences silently to

A Puppet Show Is a Legitimate Follow-Up Activity

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identify the word containing the double vowel. Examples:

Mary brought a red *leaf.*
There is one book for *each* of us.

c. *Composing Sentences Using Words Containing Phonetic Elements Just Learned.* The child's ability to apply what he has learned may be appraised by using the words containing the element in different contexts. For example, if the vowel digraph *ea* has been taught in the word *eat,* these sentences may be used. The words used in the sentences should be within the pupils' reading vocabulary.

We like to *read* funny stories.
Our rabbit likes *peas.*

If the "short" and "long" sounds of *oo* have been dealt with, the teacher and the children may compose sentences in which both sounds of *oo* are included For example

> We will *look* at the next very *soon*
> We *took* our own *food*.

d. *Contrasting "Short" and "Long" Sounds of* oo The teacher writes on the blackboard pairs of words with "short" and "long" *oo* The pupils pronounce them and listen for the contrasting sounds For example

> foot—moon
> look—spoon
> stood—cool

e *Changing Words by Substituting Double Vowels for Single Vowels* The teacher selects words with "short" and "long" vowels from the reading vocabulary of the children Words with "short" vowels are written on the blackboard The pupils experiment by adding another vowel Examples:

> met—meat, meet
> flat—float
> bat—boat, beat
> pal—pail, peal
> rod—road

6 *r controlled by* r

a *Discovering the* ur *Sound* The teacher pronounces words of this type *big, bite, girl, first* After each word is pronounced, the pupils decide what sounds of r they hear They hear the "short" sound of r in *big* and the "long" sound of r in *bite*, but they discover that the sound of r in *girl* and *first* is neither "short" nor "long" The teacher, then, gives other ur words until the children understand that r "controls" the sound of r

b *Listening for* ur *Sounds* The teacher pronounces a number of words containing "short" r, "long" r, and ur Examples *bird, hide, birthday, chuck, circus, climb, first, high, stir* The pupils pronounce each word to decide

whether they hear "short" r, "long" r, or r with r.

c. *Matching Visual Symbols and Sounds.* The teacher writes a list of words containing ir on the blackboard. The pupils take turns pronouncing each word and point to the ir letter combination.

Word Analysis: Structure

Up to this point, two major approaches to the development of a reading vocabulary have been discussed: the acquisition of a sight vocabulary and of phonetic analysis, or phonics, techniques. At this point a third approach will be described analysis of word structure.

First, Sight Vocabulary In the development of a sight vocabulary during initial reading instruction, attention was focused first on meaning and secondly on the mechanics of the word form The child is first taught to use the context as a clue, or aid, to word recognition. Then, other aspects of context—such as picture clues and language-rhythm clues—are systematically used as aids to word recognition Finally, configuration clues and the distinguishing details of words are considered in meaningful language situations If this initial stage of reading instruction has been achieved successfully, meaning and word forms have been blended so carefully and skillfully that they are as one the learner has his roots deeply embedded in the reading process

Second, Phonetic Analysis After a substantial sight vocabulary has been developed, meaning-word-form relationships are further established by a systematic development of concepts and analysis techniques The word-pronunciation facet of word recognition is developed by relating the *sounds* of words to the printed *forms* of words through phonetic analysis Guidance in phonetic analysis is given when the pupil identifies his needs in silent reading situations, that is, in situations heavily freighted with meaning, or semantic significance.

This procedure gives the learner an opportunity to apply previously learned techniques—especially the use of contextual aids—and "new" techniques. If this stage of reading instruction has been achieved successfully, meaning and word forms have been compounded to the degree that the learner has attained a considerable degree of independence in reading situations.

Third, Word Analysis. After phonetic analysis as a word-recognition technique has been introduced, attention is directed to the structure of words. For example, at the "primer" level, the pupils usually have some opportunities to note small words in larger words that *sound* like previously learned sight words and to deal with words formed by adding *s* to previously learned sight words. At the "high-primer" or "first-reader" level, the pupils have encountered enough two-syllable words (e.g., *something*) to recognize the sight words of which they are composed. At this point two observations should be made: First, word-recognition learnings are cumulative; that is, previously learned skills are used at increasingly higher levels of efficiency as new skills are added. Second, word-recognition skills are developed so that they complement one another; that is, for example, the elementary skills involved in the structural analysis of words are introduced as soon as progress is being made with the phonetic analysis of words. A gradual transition is made from the "letter" phonics of monosyllables to the "syllable" phonics of words with two or more syllables. As facility in phonetic analysis is achieved more and more attention is given to the structural analysis of words.

The visual analysis of word forms to identify pronunciation and to estimate meanings is strengthened by a study of the structure of words. To facilitate this discussion, structural analysis will be limited to these considerations: compound words, prefixes, suffixes, roots, inflections, and the general problem of

syllabication and accent. It is assumed that the recognition of common prefixes, suffixes, roots, and inflections along with the syllable divisions of words is an effective means of word recognition.

Many of the activities involving the analysis of word structures prepare the pupil for initial instruction in the use of the dictionary. Furthermore, skills in the use of contextual aids, phonetic analysis, and structural analysis are brought into full bloom after the pupils are initiated into the use of a dictionary.

TERMINOLOGY

In the professional literature dealing with the analysis of word forms, a few special terms are used. Some of those used in this discussion are described at this point.

Root. A root, or primitive word, is one that cannot be reduced to a more simple form in the language from which it was taken. Examples: *good, man, kind, nine, party, dream.* A root is a word form from which other words may be derived as *seven* in *seventy, room* in *roomer, cede* in *precede,* and *roll* in *roller* and *enroll.* It will be noted that the root carries the fundamental meaning without a prefix or suffix.

Stem A stem is the main part of a word. Dictionary definitions run as follows: the part of a word to which various endings may be attached (Winston); the part of a word to which terminations are added (Ayres); base of a word that remains essentially unchanged by the inflectional changes of the word (Macmillan); the part of a word which remains unchanged when endings are changed or added to the word (Webster); that part of a word to which the case endings or personal endings and tense-signs are added (Funk and Wagnalls); the part of a word to which endings are added and in which changes are made (Thorndike). The stem is derived from and is often identical with the root. Examples: *run, running, runner, ran.* The roots *six* and *nine* are stems in *sixty* and *ninety* A part of the root in *dry* is the stem in *dried.*

Derivative A derivative word is one made up of a root and one or more formative elements called prefixes and suffixes Examples *refill, goodness, hardly*

Compound A compound word is one made up of two or more simple words. Examples *milkman, into, everyone*

Affixes. An *affix* is a term used to designate either a prefix or suffix When *affix* is used as a verb, it designates the joining of a prefix or a suffix to a root word A *prefix* is a significant syllable or word placed before and joined with a word to modify its meaning Examples *(ab)stract, (un)aided, (ob)stacle* A *suffix* is a significant syllable, or syllables, placed after and joined with a word to modify its meaning Examples *safe(ly), mov(able).*

Word Variant. A word variant is one made up of a root and an inflectional ending This variation of form is used to indicate a change of meaning by showing a grammatical change Five parts of speech are inflected· adverbs, adjectives, nouns, pronouns, and verbs Examples: *walked, running, cities, shorter, shortest*

NEW WORDS

There are at least four ways in which words have been added to the English language· derivation, compounding, borrowing, and sheer invention New words are usually derived by adding letters or sounds to the beginning or end of a word The addition of prefixes and suffixes is one way new words are derived. Derivation is sometimes achieved by internal vowel change (or changing a vowel inside an "old" word), as, for example, *write* and *wrote, ran* and *run*

New words are formed by a second means compounding This is a process by which two words are put together to form a single word The meaning of the new word is different from the meaning of the first word plus the second For example, *grasshopper, milkman, blackboard,* and *blackberry* are blended into grammatical units that have meanings different from the meanings of the individual words. The words may be written as solid compounds (e.g., *postman*), hyphenated compounds (e.g., *mid-air*), or two-word compounds (e g , *sitting room*). Often the compounds are pronounced with the accent on the first syllable.

A third source of words is borrowing from another language. For example, many words in English are French, such as *garage* and *café.*

Several new words have been coined; that is, they are completely new words For example, Eastman arbitrarily coined the word *Kodak* as a trademark for a small camera Ping-pong was coined to describe the sound made by the ball. Other words commonly employed by advertisers include: *Lux, Pyrex, Vitalis, Serutan,* etc. And so, new words come into use

SYLLABICATION

The term syllabication is used to designate the act of dividing words into their component parts, or syllables. For beginners, the term *syllable* is not used They are merely told about "parts of words." The term *syllable* is seldom used in spelling and language books before the third-grade level Syllabicated entries in glossaries and dictionaries usually are introduced after the child has achieved approximately "third-grade" level reading ability The dividing of words at the end of lines in writing activities is introduced at the fifth- or sixth-grade levels

Recently there has been considerable interest in the adequacy of phonetic analysis for the purpose of "unlocking" polysyllables Much painstaking research has been done on this problem by Dr E W. Dolch (60, 62). Some of Dr. Dolch's significant results and conclusions are summarized as follows·

1 The child encounters an increasingly significant number of polysyllabic words beginning with the third grade level

2 In general, phonics taught in the primary grades "are based upon an analysis of the common words, which are predominantly *monosyllables,* or monosyllables with inflec-

tional endings such as *ed* or *ing*" (60, p. 121)
For example, here are ten words commonly
used in preprimers: *the, a, mother, is, I, to, and,
said, come, you*. It will be noted that nine of the
ten words are monosyllables. Here is a list
of words commonly used in third readers:
*heard, beautiful, cloths, kept, hot, really, hundred,
careful, also, wonderful*. Only three of the ten
words are monosyllables.

3. Approximately eighty-one per cent of the
19,000 (dictionary basis) in the Buckingham-
Dolch *Combined Word List* are polysyllabic.

4. Most syllables in the English language be-
gin with consonants; most phonograms begin
with vowels For example, ten commonly used
phonograms are: *ee, ed, org, es, ea, an, ou, en,
oy, oo*.

5. When the "important" phonograms corre-
spond to "parts of syllables or even parts of
two different syllables," they cover only
38.7 per cent of the syllables found in sam-
plings of elementary school *textbooks* (62,
p. 39). The letter combinations of phono-
grams often "cut across syllable divisions."

6. Most common syllables are *a* and the in-
flectional endings *ing, ed*, and *er*.

7. Since phonograms "are of doubtful help in
the attack on polysyllables," the child should
be taught how to divide words into syllables.

Table III is a summary of data on the
most common syllables as determined by
Dr. Dolch (62, pp. 40 and 41). The sylla-
ble is given in the first column; the fre-
quency of occurrence of each syllable in a

fourteen-thousand-word sampling of
textbooks in the second column; the num-
ber of *different* words in which each syl-
lable was used, in the third column. For
example, the syllable *ing* occurred with
the highest frequency and appeared in
the highest number of *different* words;
the syllable *y* is a frequently used sylla-
ble, but it appeared in only twenty-five
different words The first nine syllables
occurred most frequently in the running
words tabulated. Three of the first nine
do not occur in many different words.

TABLE III

Common Syllables (After Dolch)

Syllable	f	Words
ing	240	135
er	223	72
a	186	74
y	174	25
ed	165	90
i	144	58
man	125	5
ly	105	59
ter	100	24
in	93	38
re	76	30
al	74	31
con	47	29
de	42	29
o	23	27
tion	20	38

MAKING A SCRAPBOOK

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12. When two consonants come between two vowels, the syllable division is usually made between the consonants. Usually only one consonant is sounded Examples: *attention, pursuit, afternoon.*

13. A consonant between two vowels is usually joined to the second vowel unless the first vowel is short. Examples: *diminish, critical, patient.*

14 When a suffix beginning with a vowel is added to words of one syllable, the final consonant of the root word is doubled. Examples: *omitted, planned, wedding.*

15. When a suffix ending with a vowel is added to words accented on the last syllable and ending in a single consonant preceded by a single vowel, the final consonant of the root word is doubled. Examples: *admittance, incurred*

16. In words ending in *tion* or *sion* the accent falls on the next to last syllable. Examples: *graduation, profession.*

17. Words ending in *l* preceded by a single vowel and not accented on the last syllable are usually spelled with one *l* when *ed* or *ing* is added.

18. When *ed* comes at the end of a word, it adds a syllable when preceded by *d* or *t* Examples: *posted, roasted, faded.*

19. Words of two or three syllables are usually accented on the first syllable except when a prefix is used

Stress and Accent In *Webster's New International Dictionary,* stress is defined: "Force of utterance given to a speech sound, syllable, or word increasing its relative loudness, accent." Stress, therefore, is the prominence given to a syllable or a word which makes it stand out among the adjoining syllables or words. The term *accent* is used to indicate stress given to syllables; the term *sense stress,* stress given to words (146, p. 76). The primary accent is the strongest accent on the word. The sense stress varies the primary accent value. Secondary accent sometimes is referred to as "half stress."

Barrows and Cordts give these suggestions for placing stress (9, pp 112-113):

Words of two or three syllables are accented on the first syllable unless it is a prefix or the less important part of a derivative or compound. Examples. *hap'py, li'brary, fol'low-ing, sat'isfy;* but *intense', prefer', alone', contain', apply', away', unknown', New York.'*

Some words which serve as two parts of speech (either noun or verb) have the stress upon the first syllable if they are used as nouns, and on the last if they are used as verbs. Examples are *sub'ject* (noun), *subject'* (verb), *con'duct* (noun), *conduct'* (verb), *reb'el* (noun), *rebel'* (verb) *Address* is added to this group of words by some speakers, who stress the first syllable when it is a noun. For example, "What is your ad'dress?" This usage, however, is not sanctioned by the dictionaries.

Words of three or more syllables are likely to have, besides the principal stress, a secondary stress, as in *tem''u la'tion, deter''mina'tion, respon''sibil'ity* In the case of very long words there may be more than one secondary accent, as in *un''reli''abil'ity, ir''respon''sibil'ity*

Notice that in counting we say *thir'teen, four'teen, twenty-one', forty-three',* while in naming a number we divide the stress, throwing it upon each member *thir'teen', four'teen', twen'ty-one', for'ty-three'* [*]

Tendencies in Accentuation. Accent is taught in relation to syllabication. Accent is a special stress of voice laid on one syllable of a word by which it is made more prominent than the rest. Every word has one syllable or more brought prominently to notice. *Accent* is to syllables what *emphasis* is to sentences. Strictly speaking, there are no definite rules for placing the stress in words. The following *tendencies* should be noted.

Words of Two Syllables. In words of two syllables, the tendency is to accent the first syllable. Examples. *sleepy* (slēp'ĭ), *giant* (jī'ant).

Roots and Stems. The tendency is to stress the root or stem of a word. Examples: *describable* (dē scrīb'a ble), *inactive* (in ac'tive)

Suffixes. In words ending in *tion* and *sion* the accent falls on the next to the last syllable. Examples: *examination* (examī'na'tion), *profession* (pro fes'sion).

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[*] From Barrows and Cordts *The Teacher's Book of Phonetics.* Boston. Ginn and Company, 1926.

Prefixes. Words of two or three syllables usually are accented on the first syllable *except when a prefix is used.* Examples of prefixes. *preceding* (pre ced'ing), *instruction* (in struc'tion). Other examples: *minimum* (min'i mum), *quality* (qual'i ty).

Transposing Accent. Frequently a word has a different accent when used as a noun, verb, or adjective Or, accent sometimes changes the meaning of a word as well as its part of speech.

Nouns	*Adjectives*
com'pact	com pact'
ex'ile	ex ile'
in'va lid	in val'id
min'ute	mi nute'
ab'sent	ab sent'
ab'stract	ab stract'

Procedures. Syllabication activities are inextricably related to other word-analysis activities, both phonetic analysis and structural analysis Furthermore, an elementary knowledge of syllabication is essential in both reading and writing, especially spelling. The following suggested types of activities for developing this aspect of word recognition.

1. *Listening for Syllables* The teacher pronounces a word such as *forgot* (fŏr gŏt') in a natural tone of voice Attention is directed to the two syllables "Did you hear the two parts of the word? Each part is called a syllable Notice the very slight pause between the two syllables of *forgot"* Additional practice on hearing syllables may be given on other words from the pupils' immediate reading vocabulary Unless the teacher is certain of the correct pronunciation, she should prepare herself by checking on the syllabication as indicated in a *standard* dictionary.

2. *Listening for Accent* After the children have learned how words are divided into parts, called syllables, for pronunciation purposes, their attention should be directed to another important factor in correct pronunciation, namely, accent A word, such as *broken* (bro'ken) is pronounced in a natural tone of voice by the teacher. Comment may run like this:

"Did you notice that the first syllable in *broken* is stressed and that the second syllable is cut off short? The stressed syllable is called the accented syllable. What syllable is accented in *begin* (be gin')?" This type of activity is followed by pronouncing words to note accent. The dictionary is used as a criterion.

3 *Seeing Words in Syllables.* The teacher may write on the blackboard a number of words taken from the vocabulary of the reading material used by the pupils These words are pronounced by the pupils and analyzed by them to learn what principle of syllabication is involved. Additional words are suggested by the pupils.

To call attention to a "single consonant between two vowels," the following types of words may be used: *peanut* [pea'nut' (pē'nŭt')], *lady* [la'dy (lā'dĭ)], *began* [be-gan' (bē gǎn')]. The dictionary is called into use when the children suggest words such as *baker, river, robin.*

To call attention to "two consonants between two vowels," the following types of words may be used: *rabbit* [rab'bit (răb'ĭt)], *picture* [pic'ture (pĭk'tûre)]. By consulting the respelling, the pupils learn what happens to the second consonant in the pronunciation of *rabbit* and of *picture.*

To call attention to a "consonant before *le,*" the following types of words may be used: *apple* [ap'le (ăp''l)], *candle* [can'dle (kǎn'd'l)], *little* [lit'tle (lĭt''l)], *riddle* [rid'dle (rĭd''l)], *turtle* [tur'tle (tûr''tl)].

To call attention to the situations in which *"ed* forms a separate syllable," the following types of words may be used. *counted* [count'ed (kount'ĕd)], *dusted* [dust'ed (dŭst'ĕd)], *minded* [mind'ed (mīnd'ĕd)]. The dictionary is used to settle clear questions for such words as *called, colored, dropped,* and *hopped* It will be noted that *call, color,* and *drop* do not end in *d* or *t.*

To call attention to the syllabication of compounds made up of two short words, the following examples may be

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used: *blackbird* [black'bird' (blăk'bûrd')], *goldfish* [gold'fish' (gōld'fish')], *overtake* [o'ver take' (ō'vẽr·tāk')]. The pupils should observe that when words are made up of two shorter words, the syllable division comes between the two words of the compound.

4. *Separating Syllables.* In general, the teacher should follow the principle of having the pupils see the word as a whole. The pupils will profit from first-hand experience in noting the syllabic divisions.

One procedure commonly employed is that of drawing lines between the syllables of words written as a whole. These words are selected from the child's reading vocabulary. For example. *help|er, in|side, ma|chine, meas|ure, pres|i|dent.* The dictionary should be used to check on the accuracy of syllabication.

Another procedure requires the listing of words in separate columns as one-syllable, two-syllable, and three-syllable words. Examples: *ashamed, act, afternoon, again, began, big, bigger, grumble, general, furniture.*

5. *Noting Division of Words at the End of a Line.* By the time a pupil is ready for systematic instruction in syllabication, he has encountered the problem of break-ing a word at the end of a line in his writing activities The problem, then, is to lead the pupil to see that a syllable is never broken. By calling attention to words broken at the end of lines in the reading materials at hand, the teacher may lead the children to the generalization. A word is broken at the end of a syllable to help with the pronunciation of it. Moreover, they will note that a word is never separated in order to add a single letter at the end of a line, as in *a ble, a cross,* and *e nough.*

6. *Noting Accent.* Phonetic, syllabication, and accent are summarized in situations where attention is directed to the "long vowel in open accented syllables." In words of this type, the pupil will note that the syllable begins with a consonant and ends with a vowel: *broken* [bro'ken (brō'kĕn)], *hazy* [ha'zy (hā'zĭ)], *paper* [pa'per (pā'pẽr)] The pupils will note that the vowels in *bro, ha,* and *pa* are "long." In words of this type, the pupils will note that the syllable begins with a vowel and ends with a consonant: *admire* [ad mire' (ăd mīr')], *explore* [ex plore' (ĕks plōr')]. The pupils will note that the vowel in *ad* and in *ex* is "short." In words of this type, the pupils will note that the

syllable begins with a consonant and ends with a consonant: *fasten* [fas'ten (fas''n)], *kitten* [kit'ten (kĭt''n)].

7. *Using Games.* An occasional game may spice up a language activity The following is an example of a syllabication game.

I am an animal I like to hang from a tree with my tail My name begins with the letter *m* I have two syllables What am I? (monkey)

Another type of game involves the use of "respelled" words in sentences Usually the children enjoy reading these "code messages" and will practice them outside of school. For example

Can you read these messages?

Thē bĭg fĭsh gŏt a'wā'
Hwĭch tran shāl wē tāk?

8 *Reading Sentences* In order to call attention to the use of accent for indicating the function of the word, the following pairs of words may be used in sentences

ab'sent (adj)	ab sent' (v)
at'tri bute (n)	at trib'ute (v)
com'pact (n)	com pact' (adj)
con'tent (n)	con tent' (adj)
des'ert (n)	de sert' (v)
en've lope (adj)	en vel'op (v)
fre'quent (adj)	fre quent' (v)
in'va lid (n)	in val'id (adj)
min'ute (n)	mi nute' (adj)
pro'ceeds (n)	pro ceeds' (v)

Example Bob will *present* the prize to the winner

INFLECTIONAL FORMS, OR WORD VARIANTS

The inflectional form of a word—sometimes called a word variant—is made by changing the word ending to show grammatical changes in case, number, gender, tense, voice, mood, and comparison *Inflection is the change of the form of a word to indicate a change of meaning* Fortunately, the inflections in the English language are comparatively few and simple Five parts of speech are inflected

Adverb comparison
Adjective. comparison, number
Noun: gender, number, case
Pronoun. gender, number, case, person
Verb voice, number, tense, person, mood

The inflection of verbs is called *conjugation.* Verbs are inflected to show a change of mood, tense, person, voice, and number. Examples: *am, was, been; go, went, gone.*

The inflection of nouns is called *declension* Nouns are inflected to show case, person, number, and gender. Nouns are usually classified as common nouns, proper nouns, and collective nouns. Examples: *boy, Iowa, class.*

The inflection of adjectives and adverbs is called *comparison.* The three degrees of comparison are positive, comparative, and superlative. Examples: *cold, colder, coldest; attractive, more attractive, most attractive, less attractive, least attractive; near, nearer, nearest.*

In reading situations, the child is guided in *recognizing* inflectional forms, or word variants The inflectional form employed depends upon the sentence setting Meaning determines the part of speech employed Since inflection is intimately related with meaning, the child acquires these word-recognition skills in contextual situations. This promotes the reading-for-meaning attitude

The child uses various inflectional forms in his speech before he enters the first grade. After he has achieved "primer" level of reading ability, his attention is directed to word variants—such as *ed* and *ing* endings—in his reading vocabulary By the time he has achieved "first-reader" level of reading ability, he notes plurals formed by changing *y* to *i* and adding *es*, and the *er* and *est* of comparison At this time, too, his writing needs have increased Since he must not try to spell phonetically (unless he desires to learn the phonetic alphabet!), structural-analysis techniques facilitate learning to spell Increased emphasis on structural analysis at the "second"- and "third-reader" levels promotes spelling

efficiency in writing activities, word-recognition efficiency in reading activities, and correct usage in general language activities.

In teaching the child to *recognize* the various inflections in reading activities and to *use* them in speaking and writing activities, the process may be simplified by dealing with the inflection itself rather than with each part of speech separately. There are at least two reasons for this recommendation: First, the use of a given type of inflection is dictated by other elements in the sentence. For example, the form of the noun or pronoun subject must agree with the verb. These, in turn, are dictated by the intent and mood of the speaker or writer. Second, the child must deal with these word and sentence elements in his speaking and reading activities—and even in his writing activities—before he is ready to deal with the technical aspects of grammar. After all, grammar is the statement of the principles of good usage which deal with the relation of words in the sentence. The child must first recognize good usage before he attempts to rationalize it. Hence, the teaching of the various inflections is far less complicated in the elementary school when the inflection itself rather than the parts of speech is considered. However, the teacher must have basic understandings of grammar in order to give the elementary-school child the required guidance.

After the child has achieved about "first-reader" level of reading ability, he has encountered several adjectives and adverbs ending in *er* and *est*. Comparison is not difficult to understand. Through the preceding guidance in the development of auditory discrimination and perception, the child is not likely to say "beautifulest." So the problem is resolved to the recognition of the word variants and their correct use. Comparison is made clear by two methods: adding *er* and *est* to certain words; using *more* and *most* to precede certain words. Accuracy in the use of comparison de-

pends more upon euphony than on rules.

Number indicates whether the noun or pronoun is singular or plural. In reading activities, the child discovers that the subject should agree with the verb in this respect. Several types of situations will be mentioned here: First, *you* is always used with a plural verb. Example: *You were* playing. Second, *each* and *every* are singular. Example: *Each has* his lunch. Third, *both* and *few* are plural. Example: *A few* of the group *were* here. Fourth, a plural form with a singular meaning requires a plural verb. Example: The scissors *were* broken. Fifth, collective nouns require a singular verb. Example: The audience *was* appreciative. Sixth, a singular subject followed by a phrase requires a singular verb Example A gang of boys *was* here Seventh, a compound subject with an *or* connective requires a singular verb; with an *and* connective, a plural verb Examples Bob or Mary *is* to go Bob and Mary *are* to go Since children also tend to confuse plural and possessive forms, their attention should be directed to the formation of these types of forms. *ladies, ladies'*.

Case is a type of inflection that may be made relatively easy to understand. In writing activities, the pupils require guidance in learning to spell the genitive (or possessive) forms of singular and plural nouns. Recognition of these word endings is developed soon after the period of initial reading instruction. In reading, the child is taught to recognize the uses of the nominative and accusative forms of pronouns. Six commonly used pronouns have both nominative and accusative forms: *I, me; he, him; she, her; we, us; they, them; who, whom*. Case—nominative (a word used as a subject), genitive (or possessive), and accusative (or objective)—is determined by an analysis of the sentence.

Tense has the meaning of *time*. After the child has achieved "primer" level of reading ability, he has encountered a number of verbs ending in *ed* and *ing* As

he progresses through the elementary school, two chief problems will arise First, the correct use of auxiliaries Examples· *may* and *can*. Second, the use of irregular verbs Examples *see, saw, seen, do, did, done, go, went, gone, come, came, come*

I. *Pronunciation of Inflectional Forms* At this point, pertinent information for the teacher is given on the pronunciation of word variants It will be noted that the information involves phonetics, syllabication, and grammar This summary is intended as a review for the teacher rather than material to be taught to the elementary-school child

The term *infinitive* is taken from the Latin word *infinitus*, meaning "without limit" The infinitive is a form of a verb used to indicate action in a *general*, or indefinite, way Example I came *to see* you.

The term *participle* is taken from the Latin *pars*, meaning *a part*, and the Latin *capere*, meaning *to take* A participle is used as an adjective or as a noun Examples The *singing* canary attracted her attention Their *singing* attracted her attention

Regular verbs add -*ing* to the infinitive to form the present participle Examples· *walking, climbing* The *ing* is pronounced as an additional syllable

Regular verbs add -*ed* to the infinitive to form the past tense and past participle If the infinitive ends in -*d* or -*t* (sounded), the -*ed* is pronounced *ĕd* Examples *end, ended* (ĕn′dĕd), *hand, handed* (hăn′dĕd); *part, parted* (pär′tĕd), *heat, heated* (hēt′ĕd) If the infinitive ends in a voiced consonant (except *d*) or in a vowel sound, the -*ed* is pronounced *d* (Note Final *e* is dropped before adding *ed*) Examples· *dream, dreamed* (drēmd), *play, played* (plād) If the infinitive ends in an unvoiced consonant (except *t*), the *ed* is pronounced *t*. Examples *work, worked* (wûrkt), *march, marched* (märcht)

When the *er* or *est* of comparison is added to a word, it usually is pronounced as an additional syllable Examples *fine, finer* (fīn′ẽr), *finest* (fīn′ĕst), *big, bigger*

(big′ẽr), *biggest* (big′ĕst); *happy, happier* (hăp′ĭ ẽr), *happiest* (hăp′ĭ ĕst).

II *Procedures* The sound of a word, the structure of a word, and the meaning, or meanings, of a word—all are clues to recognition Many of the procedures for developing the recognition of word variants have been suggested in connection with phonetic analysis. At this point, the *emphasis* is given to the analysis of inflections but not to the exclusion of other aspects of word recognition. The following types of procedures may be used to provide experience with *recognition* of word variants.

A *Listening for Inflections, or Word Variants* The teacher may pronounce pairs of words taken from the reading vocabulary. The children are instructed to listen to the ending sounds. Examples *walk, walked, dream, dreamed; work, worked; live, lived* The words are pronounced in a natural tone of voice. The teacher gives words ending with the *t* sound of *ed* in one group and the *d* sound of *ed* in another.

The same procedure is used with verbs ending in *ing*. Examples· *play, played, playing; work, worked, working.* Meaning is enhanced by using the words in interesting sentences.

The *er* and *est* may be introduced in a similar manner. With these words it is highly important to develop concepts of comparison Examples *small, smaller, smallest, big, bigger, biggest.*

B *Listing Word Variants.* Recognition of word variants may be presented by listing words and their inflectional forms The teacher may suggest the root word, the pupils, the variants After the words are listed, the pupils may "frame" with their hands or underline the root word in each variant Examples·

ed and *ing*	walk, walked, walking
	look, looked, looking
s	bell, bells
	kitten, kittens
ies	story, stories
	pony, ponies

er and *est* of comparison	cold, colder, coldest big, bigger, biggest

C. *Editing Sentences.* In this type of activity, the child either crosses out the wrong words or writes in the correct word. Examples:

Cross out the words that do not belong in each sentence.

> hot
> This is the   hotter   day of the year.
>   hottest

>   big
> Tike is   bigger   than Mac.
>   biggest

Write in the correct form of the word.

> play   Jerry is _____ baseball
> jump   Susan _____ over the rope

D. *Listening for Root Words.* The teacher selects a number of words from the reading vocabulary. As each word is pronounced, the children identify the root word. Examples: *helper* (help); *hopped* (hop); *smallest* (small); *sleeping* (sleep).

E. *Writing Root Words.* The pupils are given a list of word variants. After each word variant, the pupils write the root word. Examples:

> jumped
> falling
> hanging
> puppies
> wagged

F. *Matching Pictures.* Pictures or line drawings of objects may be used for this activity. To the right of each picture, two or more words are written. The pupils draw a line under the word that matches the picture. Examples:

> Picture   *dog, dogs*
> Picture   *penny, pennies*

DERIVATIVES

The study of word variants, or the inflectional forms of words, is one approach to the analysis of word structure. A second approach is through the study of *derivatives*, or the derived form of words. This second approach at the elementary-school level involves the study of roots, prefixes, and suffixes.

A beginning on the analysis of the inflectional forms of words (i e , word variants) is made at the first-grade level; on the analysis of derivatives, at the second-grade level. The structure of the word is analyzed for clues to recognition and to meaning By a careful blending of the learnings in phonetic analysis and structural analysis, the teacher guides the child toward versatility and independence in word recognition.

Some knowledge of roots and their prefixes and suffixes contributes to correct spelling, correct usage in speech and writing, and to word recognition in reading activities The teaching of this aspect of word analysis need not be complicated. Pupil investigation of word structure may be made most interesting and highly profitable

Roots. A root is the simplest form of a word A root has or has had independent existence, and it has meaning without a prefix or a suffix That is, a root has meaning, or meanings, of its own. An analysis of a word to determine its root is made to identify both its form for pronunciation purposes and its meaning.

It has been estimated that approximately thirty per cent of our English words are Latin in origin. If an individual learns a relatively small number of the commonest Latin roots, he may understand hundreds of English words. Smith (215) found that these ten Latin words plus two Greek words (*logos* and *grapho*) "enter in some form or other into the composition of twenty-five hundred English words."

Latin	English	Derivatives
facio	do or make	facility, difficult, sufficient, effect
duco	lead, bring forward	produce, induce, introduce, conduct
tendo	stretch	tend, tendency, intend,
plico	fold	ply, appliance, comply, display
specio	see, observe	conspicuous, suspicious, inspect, respect

Latin	English	Derivatives		Root	Meaning	Illustrative Word
pono	place	postpone, opponent, position, deposit		jungo, junctum	join	junction
teneo	hold, have	tenant, tenure, content, contain		locus	place	locate
				loquor, locutus	speak	loquacious
fero	bear, carry	ferule, confer, offer, transfer		mitto	send	remit
				mors, mortis	death	mortal
mitto	send	admit, transmit, omit, permit		multus	much, many	multiply
				omnis	all, entire	omnipotent
capio	take, seize	capable, anticipate, conceive, accept		pater	father	paternal
				pes, pedis	foot	centipede
				pono, positum	to place	position
				potior	to be able or strong	potential
				porto	carry	portable
				primus	first	prime
				pugno	to fight	pugnacious
				scribo, scriptum	to write	script
				socius	friend	social
				solus	alone	solo
				totus	entire	total
				utilis	useful	utilize
				verto, versum	to turn	invert
				via	way	viaduct
				video, visum	to see	visible

About five per cent of our English words are Greek in origin Two commonly used Greek roots—mentioned above—are *logos* and *grapho* The word *logos* means *speech, ratio, description, science* Smith remarked (215, p 67) "Though no rigorous and exhaustive count has been made, there are at least 156 English words in the formation of which *logos* plays a part" Some of these English words are *anthology, apology, biology, catalogue, geology, logic, monologue, mythology,* and *physiology*

The stem *graph* from *graphein* (meaning to write) is the basis of a large number of English words Some of these words are *autograph, bibliography, digraph, graphic, lexicographer, paragraph,* and *telegraph*

Sauer has suggested the study of thirty-five Latin roots and thirty Greek roots "which actually guaranteed many English words for every Greek or Latin one studied" His list follows (198, pp 758-760)

A Latin Roots

Root	Meaning	Illustrative Word
aqua	water	aquatic
audio	to hear	audience
bene	well	benediction
cor, cordis	heart	cordial
corpus, corporis	body	corporal
credo	to believe	credit
deus	God	deity
dominus	lord	dominate
ego	I, myself	egotist
facio, factum	to do or act	fact
filius	son	filial
frater	brother	fraternal
ignis	fire	ignition

B. Greek Roots

Root	Meaning	Illustrative Word
aer	air	airplane
arche	beginning, chief	archbishop
autos	one's self	automatic
bios	life	biography
chronos	time	chronological
cratos	rule, strength	autocrat
ge	earth	geology
grapho	to write	phonograph
heteros	other	heterodox
hex	six	hexagon
homos	alike	homogeneous
hydor	water	hydraulic
logos	speech, science	prologue
metron	measure	thermometer
micro	small	microscope
octo	eight	octopus
orthos	correct	orthodox
pathos	suffering	pathetic
pan	all, whole	pan-American
penta	five	pentameter
philos	friend, lover	philosopher
phobos	fear	phobia
phone	sound	telephone
polis	city	Minneapolis
poly	much, many	polygamy
pseudos	false	pseudonym
psyche	soul, mind	psychology

Root	Meaning	Illustrative Word
sophos	wise	philosopher
tele	far off	telegraph
theos	God	theology

Prefixes. A prefix is one or more syllables or a word put at the beginning of a word to modify its meaning Many prefixes are of Latin origin To a lesser degree, Greek has influenced the use of prefixes in English words

Recently, Russell Stauffer (217, pp. 453–458) obtained one answer to this question: What prefixes should be taught? Stauffer attacked this problem by analyzing the vocabulary of the 1932 edition of Thorndike's *The Teacher's Word Book of 20,000 Words* The results of Stauffer's study are most interesting:

1. 4922, or twenty-four per cent, of the 20,000 words have prefixes

2. Fifteen prefixes account for eighty-two per cent of the total number of prefixes

3 A significant number of prefixes occur among the most frequently used

words (i.e., the first five hundred) as well as among the less commonly used (i.e., the last one thousand).

These data from Stauffer's study are summarized in Tables IV and V These tables were taken from his original study which was made in the Reading Clinic at The Pennsylvania State College

Stauffer's study gives one answer to the problem of what prefixes are important in language activities Of course, the one criterion used in this study was frequency of occurrence in the Thorndike list. Studies of this type take the guesswork out of teaching.

At this point, information is given on common prefixes First, it should be noticed that prefixes frequently have more than one meaning Second, prefixes often have more than one spelling, depending, in part, upon the root. Third, a prefix may have only one spelling but more than one pronunciation The information that follows presents this subject in some detail

DEVELOPING WORKING CONCEPTS

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TABLE IV

Frequency of Fifteen Commonest Prefixes (After Stauffer)

Prefix		Frequency
ab	(from)	83
ad	(to)	433
be	(by)	111
com	(with)	500
de	(from)	282
dis	(apart)	297
en	(in)	182
ex	(out)	286
in	(into)	336
in	(not)	317
pre	(before)	127
pro	(in front of)	146
re	(back)	453
sub	(under)	112
un	(not)	378

The Latin prefix *com* is the most commonly used one It is from the Latin preposition *cum*, meaning "with." Common meanings include "with, together, or very" Assimilated forms include *co-* (co-equal), *co-* (cognate), *col-* (colloquy), *con-* (convene), and *cor-* (correlative) It is spelled *com* before *b*, *p*, *m*, and sometimes *f*.

The Latin prefix *ad-* is a very common one It has several meanings "to, at, toward, about" The spelling of this prefix depends upon the first letter of the root word It is spelled *ad-* before a vowel and before *d*, *h*, *j*, *m*, *v* Examples: *adapt*, *address*, *adhesive*, *adjust*, *admit*, *advance*. It is spelled *a-* before *sc*, *sp*, and *st* Examples *ascend*, *aspect* The prefix *ad-* is assimilated to *ac-*, *af-*, *ag-*, *al-*, *am-*, *an-*, *ap-*, *ar-*, and *at-*, to facilitate pronunciation, as in *accept*, *agree*, *allay*, *announce*, *append*, *attend*, etc That is, the final consonant of the prefix assimilates to the initial letter of the root

The Latin prefix *re-* is a very common one having two general meanings In the words *retrace* (to go back over), *replace* (to put *back* in place), and *repay* (to pay *back*), it is used in the sense of "back" That is, something is put back in an original state or position In the words *renew* (to make new again), *rebuild*, (to

build *again*), and *rebind* (to bind *again*), it is used in the sense of "to make new again" or "anew"

The Anglo-Saxon, or English, prefix *un-* is a very common one. It has the meaning of "not", "opposite act" in the verb, or the "reverse." For example, the first meaning, *not*, is given in *unequal* ("not equal"); the second meaning, *opposite act*, in *unlock* (the opposite of "to lock"). This prefix is very easily identified in a word, and the meaning is quite apparent from a knowledge of the root.

The prefix *in-*, meaning "into", is a common one In the words *indoors* and *inside*, it means "within"; in *inclose*, "on", in *inclose*, *inject*, and *income*, "in or into", in *incriminate*, "against"; and in *inbound* "toward." This prefix is changed to *il-* before *l* as in *illuminate* and *illusion*; *ir-* before *r* as in *irradiate* and *irrigate*; and *im-* before a labial as in *imbibe* and *import* These changes are euphonic variations The prefix *in-* also is spelled *en-* and *em-* as in *enforce*. The last two forms are of French origin.

The Latin prefix *in-* meaning "not, without, or lack of" is also a common one This prefix in the word *inaccurate* means "not accurate" in the word *inability*, "without or lack of ability." Whe

TABLE V

Thorndike Rating and the Frequency of Occurrence of the Fifteen Most Common Prefixes (After Stauffer)

Prefix Thorndike rating	ab	ad	be	com	de	dis	en	ex	in	mis	pre	pro	re	sub	un	Total
1a	1	3	7	1	0	0	0	0	0	1	0	3	0	1	0	17
1b	1	4	3	6	4	6	3	0	1	0	3	0	6	1	6	44
2a	1	11	4	10	6	3	3	6	4	1	5	4	10	3	1	70
2b	2	17	2	16	6	3	1	8	6	1	1	4	6	3	2	68
3a	1	9	0	8	9	8	4	4	9	5	1	8	16	4	0	88
3b	3	20	5	22	6	10	3	4	13	3	4	22	3	2	0	113
4a	2	11	3	17	7	6	5	9	9	4	2	9	4	2	6	95
4b	2	10	2	17	5	7	3	8	10	4	0	3	15	1	4	91
5a	2	17	2	11	9	10	6	7	7	3	1	9	13	2	6	107
5b	3	24	3	14	7	7	7	10	12	1	2	3	13	6	8	120
6	4	21	5	25	13	5	14	9	14	10	6	6	16	5	12	165
7	6	30	8	33	23	16	12	17	26	15	12	11	36	6	8	259
8	6	30	6	39	16	11	9	26	25	14	11	7	20	12	21	253
9	7	20	5	39	13	24	17	20	24	31	9	7	27	6	14	265
10	1	23	4	23	23	24	10	14	21	16	14	4	17	4	11	218
11	4	30	5	21	27	13	24	7	11	21	4	8	30	5	32	235
12	4	25	6	27	13	20	7	11	15	4	4	7	7	7	26	218
13	3	8	5	25	11	16	7	18	19	20	2	4	28	4	36	212
14	5	5	5	24	11	16	6	19	22	4	3	4	9	4	22	212
15	7	23	7	26	22	13	8	19	27	45	11	12	26	5	36	287
16	8	24	4	26	19	24	16	20	25	9	11	9	29	4	16	264
17	2	17	2	9	16	11	12	10	8	8	29	4	6	16	11	161
18	4	0	0	24	11	14	7	11	10	8	8	5	14	5	12	149
19	1	6	12	5	6	17	11	17	3	6	1	8	13	3	30	146
20	2	16	12	29	10	5	16	7	13	8	1	6	24	4	22	186
Total ..	83	433	111	500	282	297	182	286	336	317	127	146	453	112	378	4043

used with adjectives or adverbs, *in-* means "not." Examples: *ineloquent* (adj.), *inadequate* (adj.), *inadequately* (adv.), *incorrect* (adj.), *incorrectly* (adv.). When used with nouns, *in-* means "without or lack of." Examples: *incompetence*, *indecision*

The Latin prefix *dis-* is a fairly common one. In general, it signifies "parting from." In the words *discontent*, *disadvantage*, and *dishonest* the prefix means "opposite of or not"; that is, "not content," etc. In *disentangle*, it means "reverse of" or "undoing." In *dissect*, it means "to take apart." In *distract*, it means "away." In *disability*, it means "lack of." This prefix is usually pronounced "dĭs," but in some words, such as *disease*, it is pronounced "dĭz." It is spelled *di-* as in *divert* and *direct* and *dif-* as in *differ*.

The Latin prefix *ex-* is a fairly common one, having the general meaning of "out." The Greek prefix *ex-*, used with words from Greek, means "out of." In the words *ex-member*, or *ex-president*, the prefix means "formerly"; in *exit* and *extract*, "out of"; in *export* and *exclude*, "from", in *excessive*, "beyond"; and in *exasperate*, "thoroughly" or "utterly." This prefix is spelled *e-* before words beginning with *b, d, g, h, l, m, n, r*, and *u*, as in *elect*; *ef-* before *f* as in *efuse*. It is sometimes spelled *ec-* as in *eccentric*, meaning "from center." Before words from the French, it is spelled *es-* as in *escort*. The spellings *e-, ec-,* and *ef-* are euphonic variations of *ex-*. The pronunciation is usually (ĕ̄ks). It is (ĕk) before an *s* sound and (ĕgz) in such words as *examination*.

The Latin prefix *de-* is relatively less common than the above-mentioned prefixes. In some words, it is equivalent to the prefix *dis-*. In general, it means "from," "down from," or "away." In *depose*, it means "to put down"; in *defend*, "to fend off", in *decentralize* and *decapitate*, "to deprive of"; in *depress* or *descend*, "down", in *depart* and *detract*, "away" or "off", in *determine* and *despoil*, "completely" or "entirely", and in *demobilize*, "to do the opposite of".

The prefix *en-* is used less than one half as often as either *com-* or *re-*. The general meaning of *en-* is "in," "into," or "on." In the word *encircle*, it means "to put in", and in *enact*, "to put into effect." Before a word beginning with *p* or *b*, it is spelled *em-* as in *employ*, *emphasis*, *embody*

So far as frequency of usage is concerned, the prefix *pro-* is in about the same class as *en-* and *pre-* The Latin prefix *pro-* means "forth" or "out" (e.g., *proclaim*); "before" or "in front of" (e.g., *prohibit*); "forward" or "to the front" (e.g., *project*, *proceed*); "in favor of" (e.g., *pro-British*); "substitute for" or "instead of" (e.g., *pronoun*, *proconsul*), "according to" (e.g., *proportion*). The Greek prefix *pro-* means "before" as in *prophet* and *prologue*

The prefix *pro-* is sometimes confused with the Latin pre- (prae) meaning "before" The combined usages of *pro-* and *pre-* are about equal to either *de-* or *dis-*. The prefix *pre-* is used to mean "before" in the sense of time, order, rank, or place as in *prejudge*, *preposition*, *precede*, and *pre-eminent*

The Latin prefix *sub-* occurs frequently enough to merit consideration Its general meaning is "under," "below," "beneath," "inferior," or "somewhat" In *subway* and *submarine*, the meaning is "under the surface", in *submerge*, "to put under", in *suburb*, *subarctic*, "near," "next to," or "bordering", in *subnormal*, "not up to standard"; in *subdivide*, "in smaller parts", in *subcommittee*, "a part of something larger", and in *sub-freshman*,

"inferior to" or "inferior in rank." In the word *sustain*, *sus-* is a contraction of *subs*. Assimilated forms include *suc-*, *suf-*, *sug-*, *sum-*, *sup-*, *sus-*, as in *succeed*, *suffer*, *suggest*, *summon*, *support*, and *sustain*

Toward the bottom of the list of common prefixes is the Anglo-Saxon *be-* meaning "by." This prefix denotes "all around" or "thoroughly" in *bespatter* and *besmear*, "to cause" or "to make" in *bedim* or *belittle*. This prefix is used with other verbs (e.g., *besiege*, *beseem*) to form verbs from nouns (e.g., *belittle*) and adjectives (e.g., *befriend*), and is used to form participial adjectives from nouns

The Latin prefix *ab-* is at the bottom of the list of commonly used prefixes. The form *ab-* (e.g., *abduct*, *abnormal*, *abdicate*) is used before words of Latin origin It also is used with English words in the *a-* (e.g., *avert*) or *abs-* (e.g., *abstain*) forms This prefix means "from" or "away from."

Suffixes. A suffix is a syllable which is put at the end of a basic word to indicate a change in meaning. The number of suffixes, of course, tends to increase along with the number of polysyllabic words

In grades two and three the pupils deal with a number of words such as *sleep(y)* and *wind(y)*. Most of these will be adjectives, such as *nois(y)* and *rain(y)*, but a few will be nouns, such as *doll(y)* and *Bill(y)*. The suffix *-y* occurs in a relatively large number of words; it may be quite readily identified, and the meaning of the word is moderately easy to identify from a knowledge of the main part of the derivative. The use of the suffix *-y* may be expected to produce a wide variety of meanings.

Children should be taught to deal with the suffix *-er* very early in speaking, reading, and writing activities. The suffix *-er* is very common and is used in a relatively large number of different words It is fairly easy to identify the suffix in a word and the meaning may be inferred from a knowledge of the root with a reasonable degree of assurance. Systematic atten-

tion may be given to the suffix -*er* as soon as the pupils have achieved about "first-reader" level of reading ability. The vocabulary at the primary-grade level will include such words as *builder*, *farmer*, *helper*, *driver*, and *mender*.

Words like these appear frequently in elementary-school reading materials: *carefully, cordially, certainly, friendly, gently, haughtily, heavenly, instantly, lively, lonely, loudly, lovely, prickly, properly, suddenly, swiftly, thickly, woolly*. When the children have acquired some understanding of the parts of speech, they will note that -*ly* is used to form both adjectives and adverbs. The suffix is quickly identified in words, but its meaning may not be so easily inferred from previous knowledge.

The suffix -*ness* occurs with increasing frequency in words at the intermediate-and upper-grade levels. One of the commonest uses of -*ness* is in such words as *happi(ness), weari(ness), bright(ness), dark-(ness)*, and *sweet(ness)*. The meaning of this suffix may be taught easily by a comparison of -*ness* derivatives rather than by drill on the various meanings of -*ness*.

The suffix -*ful* is common to frequently used words and, therefore, will be met very early in the language career of the child. The suffix may be identified easily, but it has various meanings which must be taken into consideration. For example, *hope(ful), beauti(ful), cheer(ful), delight(ful), dread(ful), faith(ful), thank(ful)*, and *truth-(ful)* occur frequently in the reading materials of the primary grades. However, the different meanings of -*ful* should be noted. In *hopeful*, there is expectancy; in *beautiful*, there are many qualities of beauty; and so on.

The suffix -*less* is used with increasing frequency as the child expands his reading vocabulary at the upper intermediate-grade level and above. The suffix is easily identified in a word and it is not difficult for pupils to infer the meaning of the word from a knowledge of the root and the suffix. Common meanings include those in such words as *cloudless* and

beardless, meaning "without." Note the various meanings of -*less* in *careless, blameless, baseless, speechless, ceaseless, doubtless, defenseless, breathless, helpless*, and *countless*. The common meanings of -*less* should be taught in the upper intermediate grades

The suffix -*ess* occurs in very few words at the primary-school level and in not many more words at the intermediate-grade level It usually means a female person—e g , *princess*—or animal—e g., *lioness*—but not always

The suffix -*like* is seldom encountered in the reading vocabulary at the primary-grade level Fortunately, this suffix has three counts in its favor it is easily identified in a word, the meaning is usually clear, and it has few special meanings. However, some of the words likely to appear in intermediate-grade materials —e g , *lifelike* and *businesslike*—have special meanings Common meanings include those of *childlike* and *ladylike*

There are a few words in the primary-reading vocabulary containing the suffix -*en*, such as *fasten* and *golden*. This suffix is easily identified in a word and its meaning may be fairly easily established Its most common meanings are "to make" as in *fasten* and "to become" as in *ripen*

The suffix -*ance* seldom occurs in the primary-reading vocabulary. A few words—e g., *appearance, acceptance*, and *abundance*—may appear in the intermediate-grade vocabulary. These words may be analyzed into syllables for pronunciation purposes and their meanings taught without too much attention to the specific meanings of the roots and suffixes.

The suffix -*ment* rarely occurs in primary-reading vocabulary Probably there are not enough words with this suffix in the intermediate-grade reading vocabulary to justify much attention to it. A few common words—such as *amazement, entertainment, contentment, basement*, and *compartment*—may be analyzed for pronunciation purposes A relatively short time

should be spent on the meanings of the suffix because elementary-school pupils need more experiences with this suffix in contextual situations.

The suffix *-ish*—e g , *selfish*—does not occur frequently enough in the elementary-school reading materials to present much of a problem. This suffix will be easily identified but its meaning may not be immediately evident Until the pupil has met several words with this suffix, there is no need to spend time analyzing its meaning.

In 1941, Dr E. L. Thorndike published *The Teaching of English Suffixes* (236) This monograph is a valuable reference for teachers In it, Thorndike lists important suffixes, with the frequency of each meaning. Suggestions are given for teaching pupils to understand and use suffixes *Some of the above statements regarding suffixes are based on Thorndike's data.*

Some of Dr. Thorndike's results, conclusions, and recommendations have a direct bearing on the word-analysis program at the intermediate-grade level.

1 "Correct responses to suffixes is not a luxury in the comprehension and use of English, but a necessity" (236, p 64)

2. Practices of the past have been characterized by incidental teaching or undiscriminating drill, and by rules oversimplified to the point where they "did not cover actual usage" or so complicated they were almost useless for application. "The systematic teaching of suffixes has certainly tempted us in the past to be indiscriminate, pedantic, and wasteful" (236, p 72)

3 "Chief among the items of adequate knowledge upon which the treatment of any suffix should be based are (1) the number of words (excluding rarities of little or no value to the pupils) in which it occurs, (2) their importance for the learner, (3) the ease of recognition that the words consist of some known or discoverable word or root plus the suffix in question, (4) the amount of help which knowledge of the suffix will give to understanding the words, and (5) the

freedom from undesirable interference with other elements of learning" (236, p 65).

4 Suffix words occur relatively frequently among the 3,000 most commonly used words. For example, the suffix *-ion* (also *-tion* and *-ation*) is used in 31 of the 3,000 commonest words.

5. Among the three thousand commonest words the following suffixes appear with a frequency of 12 or more: *-ion, -tion,* and *-ation* (31); *-er* (22); *-y* (21); *-al* (21); *-ent* (15), *-ful* (15); *-ity* or *-ty* (13); *-ure* (13); *-ous* (12).

6 Among the four thousand commonest words, the following suffixes with a frequency of 12 or more: *-ion, -tion,* and *-ation* (107); *-er* (69); *-y* (61); *-al* (45); *-ous* (40); *-ment* (39); *-ful* (37), *-ity* or *-ty* (34), *-ent* (31); *-ur* (27); *-ness* (25); *-ence* (23), *-ance* (21); *-en* (21); *-ly* in adj (19), *-ory* (17); *-ue* (17); *-ant* (16); *-able* (15), *-an, -ian, -n* (14), *-less* (13); *-ic* (12).

7 In some words, the suffix may be readily recognized; in other words, considerable knowledge is necessary to identify the suffix. For example, *these suffixes* may be readily identified. *-like* (99); *-most* (99); *-less* (93); *-ship* (91); *-ly* in adj (87), *-full* (88); *-fold* (85); *-hood* (83), *-wise* (80), *-head* (80); *-en* (80). (The figures indicate Thorndike's word-analysis score. For example, ninety-nine per cent of the pupils in grade 10 are expected to recognize the suffix *-like* in a word)

8. In some words a knowledge of the suffix contributes readily to an understanding of the meaning; in other situations this knowledge helps very little. For example, a knowledge of these suffixes may be of considerable help in the identification of the meaning of a word. *-cide* (97); *-most* (96), *-fication* (96); *-ancy* (93); *-ass* (92), *-itis* (91); *-like* (89); *-cy* (88); *-ship* (87); *-fold* (86); *-ese* (85); *-en* (83); *-form* (83); *-ie* (82); *-acy* (82); *-hood* (81). (The number in parentheses indicates Thorndike's estimated inference score. For example, ninety-seven per cent of the pupils in grade 10 are expected to know the meaning of the words containing the

go

Baby

we

may

ride

want

going

we

Altoona, Penn

suffix *-cide* if they know the meaning of the suffix and if they know the meaning of the main part of the word)

9 "The value of knowledge of the meaning of a suffix as an aid in understanding the meaning of words depends in part upon the rest of the word There are four important cases The word may be divisible into the suffix plus (1) the well-known English word, or (2) a word whose meaning is unknown but can be guessed at or looked up in a dictionary; or (3) a well-known root or part of words, or (4) a root or part of words whose meaning is unknown and undiscoverable by the pupils in question For example, for a pupil in grade 7 or 8, we have (1) *acceptance, allowance,* (2) *advertence, acquittance, acquiescence,* (3) *abundance, brilliance,* (4) *accidence, arrogance* There are, of course, intermediate degrees" (236, p 70).

I. *Special Suffix Rules.* Considerable research has been done on the use of rules in writing activities Sometimes there are so many exceptions to a rule and the rule becomes so unwieldy, there is little value in teaching them to children The following special suffix rules are given here for the convenience of the teacher

A *Plurals* Plurals of most nouns are formed by adding *s* to the singular. Example *boy, boys* To make pronunciation easier, the plurals of some nouns are formed by adding *es* When the singular ends in *s, sh, ch,* or *x,* the plural is formed by adding *es* Examples *dress, dresses, dish, dishes, witch, witches.* A noun ending in *y* preceded by a consonant forms its plural by changing the *y* to *i* and adding *es* Example *city, cities*

B *Silent e* A word ending in silent *e* usually keeps the *e* when adding a suffix beginning with a consonant. Examples *nine, ninety; care, careful, careless.* A word ending in silent *e* usually drops *e* when adding a suffix beginning with a vowel. Examples. *freeze, freezes; cure, curable, los* .... *chose, chosen*

A varia......... rt of the above rule is stated *i*............ *atim..... ses* ending in..............are w.......

out an *e* before the *a.* Example: *move, movable.* The pronunciation is that of the main word plus *able.*

C. *Final y.* A word ending in *y* after a vowel usually keeps the *y* before a suffix. Examples: *day, days; buy, buying, obey, obeyed* A word ending in *y* after a consonant usually changes the *y* to *i* before a suffix, except a suffix beginning with *i* Examples. *try, tried, (trying); fly, flier, (flying).*

D *Doubling a Final Consonant* A one-syllable word ending in one consonant after a "short" vowel usually doubles the consonant before a suffix beginning with a vowel Examples. *big, bigger, biggest* A word of more than one syllable ending in one consonant after one "short" vowel usually doubles the final consonant before a suffix beginning with a vowel if the accent is on the last syllable Example: *begin, beginner, beginning*

Procedures. By the time the child is ready to read fourth-grade materials, he has acquired a number of word-recognition skills to deal with different types of words Furthermore, he has developed considerable versatility in applying these skills Monosyllabic words may be attacked by means of phonetic analysis. Many compound words may be identified by recognizing the two monosyllables of which they are composed. Some polysyllabic words may be identified by looking for a known monosyllable and the prefix or suffix or both. The remaining polysyllabic words—sometimes called "true" polysyllables—may be attacked by analyzing them into syllables and, if necessary, by applying phonetic analysis to the syllables. This requires the noting of the number of vowels, the identification of prefixes, dividing the consonants in the word, and, finally, pronouncing the whole word with the proper sound values and accent.

When the children have not been given systematic guidance in dealing with long words, they sometimes develop a fear of them During the early period of

reading instruction, the few long words appearing in reading materials may be recognized by their length and through the context. Soon, however, these long words accumulate to the point where the pupils must be given techniques for the independent recognition of them. Words such as these pile up at a rapid rate in the third grade: *machine, manners, message, midnight, mistaken,* and *morning.* If the child has no means of analyzing the word structure for recognition clues, he is unable to see the word because of the long jumble of letters. Analysis of word structure develops confidence and independence in word recognition.

When to teach certain prefixes, suffixes, inflectional endings, and roots should be based upon several considerations. First, how frequently does the element occur in words at a given reading level? Second, will an understanding of the element facilitate word recognition at higher reading levels? In other words, does the item continue to present a problem in subsequent reading activities? Third, is the item easily recognized in the word? Or, does the child have to be an experienced linguist to identify the element? Fourth, is the child sufficiently sensitive to changes in meaning to identify the specific meaning of the element? Many prefixes, suffixes, and roots have more than one meaning. When they are combined, the meaning possibilities are sometimes multiplied beyond the linguistic skill and understanding of the elementary-school child. In short, the *frequency* of occurrence and the *nature of the element* must be considered in relation to the child's language facility before systematic instruction is initiated.

The chief purposes of structural-analysis activities are to promote word recognition, to facilitate correct pronunciation, to extend vocabulary, and to encourage correct usage. One of the chief instructional jobs is to develop general language ability. This means that guidance in dealing with word structure cannot be compartmentalized in terms of

reading, oral and written composition, and spelling. Instead, guidance is given when the need arises in social studies, science, mathematics, or literature. At one time this may involve primarily reading; at another, primarily spelling or usage.

The following procedures are to be used as suggestions of types of activities:

I. *Discovering Prefixes and Suffixes.* After the pupils have encountered several words with the same prefix, the teacher writes the list on the blackboard. The pupils discuss the meanings of the words. Then, their attention is directed to similarities in meanings and in the appearances of the words. In this way, the children discover the form of the prefix and its effect on meaning. Examples:

unkind	retest
unknown	retreat
unlike	return
unload	reunion
unlock	review
unlucky	revive
unpack	
until	

This same procedure may be followed with suffixes. Examples:

avoidable	accuser
attachable	booster
detachable	boaster
endurable	borrower
obtainable	discoverer

II. *Direct Explanation.* To be most effective, direct explanations should be based on needs identified by the pupil. In addition, opportunities should be provided during the explanations for pupil questions and comments. There will be occasions when pronunciation and meanings of prefixes, suffixes, and roots should be explained and reviewed.

III. *Separating Roots and Affixes.* The pupils are instructed to draw a line between the root and the prefix and/or suffix of each word. After the word, the meaning is given. Examples:

Word	*Meaning*
farm|er	one who farms
un|happy	not happy

IV. Finding Basic Words The pupils are given groups of words and instructed to identify the part that gives the basic meaning Examples·

Word	Meaning
elect, select	choose
local, locate, location	place

V. Listing Opposites The teacher makes a list of words taken from a selection read previously The pupils are given the antonyms of the words in the story and are instructed to find the words Example

In the story, find the words with opposite meanings to these

able	(unable)
improbable	(probable)
happy	(unhappy)
leisurely	(hastily)
slowly	(quickly)
carelessly	(carefully)

VI *Identifying Prefixes* The teacher writes on the blackboard a number of words containing prefixes These words are taken from the reading vocabulary of the group The children identify the prefix and give one meaning of the word.

Word	Prefix	Meaning of Word
disabled	(dis)	cripple
disappear	(dis)	vanish

VII *Building Words* The teacher gives the pupils a number of root words taken from the reading vocabulary. The pupils are instructed to add a prefix or a suffix to each, and then to use the word in an interesting sentence Examples

port (report, support, reporting)
Our accident was *reported* to the police.

joy (enjoy, enjoying, joyful)
We are *enjoying* a new book

join (enjoin, joining, rejoin)
Mary will soon *rejoin* our group.

The teacher selects a number of prefixes or suffixes from the reading vocabulary. The pupils are instructed to write several words containing the prefixes or suffixes and to use each word in an interesting sentence. Examples of prefixes:

Prefix	Meaning	Illustrative Word
ad	to	admit
com	with	commemorate
un	not	unaided
re	back	reassure

Examples of suffixes:

Suffix	Meaning	Illustrative Word
ly	manner	carefully
er	person	farmer

VIII. Matching Prefixes and Meanings. The pupils are given a jumbled list of prefixes and meanings They are instructed to match each prefix with one of its meanings by placing the number of the prefix before its meaning. Examples:

Prefix	Meaning
1. ad	(4) apart
2. be	(1) out
3 com	(5) back
4. dis	(3) with
5 re	(2) about

IX. Rewriting Sentences. The pupils are given a number of sentences containing words with prefixes or suffixes They are instructed to identify the word with a prefix and rewrite each sentence with a new word or phrase to give the same idea. Examples.

Mary returned my book
(Mary brought back my book)

The farmer came soon
(The farm worker came soon)

The above procedure may be used in reverse by giving the pupils sentences in which they may substitute a word with a prefix or suffix for a word or phrase Examples:

We had a man carry our bags
(We had a *porter* carry our bags)

John went back home in a hurry.
(John *returned* home in a hurry)

Another use of rewriting sentences to call attention to prefixes and suffixes may be made this way:

Bob was proud to ride his new bicycle.
(Bob proudly rode his new bicycle)

X. *Finding Derivatives.* The children are instructed to list ten or more interesting words of more than one syllable. They are then told to indicate after each word the base word, prefix, and suffix. Examples:

Word	Base Word	Prefix	Suffix
unhappy	happy	un	
wrapped	wrap		ed

XI. *Telling Words Heard.* The teacher pronounces a number of compound words. The pupils tell what words they hear. Examples: *milkman, postman, newspaper, cannot, without, bedroom, daylight, birthday.*

XII. *Noting Words within Words.* Attention may be directed to the words of a compound by covering the second part to call attention to the first part, and vice versa. These words should be within the immediate reading vocabulary.

XIII. *Matching Small Words with the Same Words in Compounds.* The following is an example of this type of activity.

Draw a line under the word in the compound which is like the first word given.

mail	mailbox
light	daylight
bed	bedroom

XIV. *Forming Compounds.* The teacher may have the children form compounds from a list of words selected from their reading vocabulary. Examples:

Draw a line between each pair of words that make a compound one:

birth	thing
any	day
some	out
with	one

Glossaries

Before the pupil is ready to use a dictionary, he has had considerable experience with glossaries. First, he has learned the differences between a *glossary* and an *index.* Second, he has learned that only one pronunciation of a word is usually given in a glossary. Third, he has learned to use the pronunciation key usually given ahead of the word lists. Fourth, he has learned that he usually finds only one meaning of a word in the glossary. Fifth, he has learned to use the context of a selection to evaluate the meaning of a term. Sixth, he understands the alphabetical arrangement of words. These experiences have prepared him to use glossaries found in the back of textbooks and to appreciate the significance of dictionary information. Since instruction in the use of a glossary is similar in many respects to that of a dictionary, the teacher is referred to additional *suggestions on the use of guide words, location of entries,* and the like in the succeeding discussion of dictionary usage.

Dictionaries

Generally speaking, the use of the dictionary is introduced after the pupils have achieved substantial "third-reader"-level reading ability. In short, pupils are introduced to the dictionary at about the "fourth-grade" level. This statement should be evaluated from two points of view: First, it should be noted that a child should have at least "third-reader"-level reading ability before inducting him into the use of a dictionary, regardless of the grade in which he is placed. Some children in the high second or third grade may be able to make effective use of certain parts of the dictionary; others *may not be ready until the fifth, sixth,* or a higher grade level. That is, readiness is estimated in terms of the general language ability and needs of the child rather than in terms of his grade placement. Second, the child who is considered ready to *begin* using the dictionary will not be able to use *all* the excellent information given.

In general, not enough attention has been given to *systematic* guidance in the use of dictionaries. First, not all pupils

"THE STORY OF MRS TUBBS"

Fred Barr   Bronxville, N 1

have experiences in the primary school with picture dictionaries Second, too often fragmentary attention is given in relationship to the compartmentalized teaching of reading, spelling, and elementary-school English On the other hand, the use of the dictionary is sometimes taught as a separate "subject" without any apparent relationship to pupil needs Third, in some situations, the use of the dictionary is sometimes postponed for *all* pupils until they are classified as "fourth graders" Then, *all* pupils are instructed in the use of a dictionary, regardless of previous language achievement Fourth, in some situations, provision has not been made for the gradual induction of the pupil into the use of a dictionary Even so-called elementary-school dictionaries contain information far beyond the grasp of the average child Hence, there is a need for the gradual induction of each group of pupils Fifth, there are dictionaries and dictionaries For example, dictionaries differ in the amount of collateral infor-

mation given and in keys to pronunciation In order to facilitate learning, the pupils should become practiced in the use of one dictionary first. Then they may be introduced to other standard dictionaries. Furthermore, children need to be taught how to evaluate dictionaries so that they can discriminate between legitimate publications and trash In summary, warped attitudes and ineffective use of dictionaries result from a lack of systematic guidance.

Goals Some of the goals of this aspect of language instruction include.

I Desirable attitudes toward the use of the dictionary

II. Skill in locating vocabulary entries quickly

A Use of alphabetical arrangement of words

B Ability to find right part of dictionary

C Use of guide words

III Ability to identify correct spelling

A. Recognition of vocabulary entry

B. Identification of preferred spelling

C. Distinguishing between hyphenated compounds and other types of compounds

D. Location of inflectional endings

IV. Ability to use pronunciation aids

A. Identification and use of syllabic divisions of words

B. Identification of preferred pronunciation

C. Interpretation of accent marks

D. Interpretation of respellings

1. Use of key words

2. Understanding of phonetic spelling

V. Ability to evaluate meanings

A. Selection of appropriate meanings

B. Identification and use of synonyms

C. Identification and use of antonyms, when given

D. Identification of definitions and illustrative sentences and phrases

E. Interpretation of illustrations, such as pictures and charts; relating of definitions with illustrations

F. Use of cross references

G. Identification and interpretation of idioms

Types of Dictionaries. There are two general types of dictionaries: abridged and unabridged. The unabridged dictionary is an attempt to catalogue all of the words and their important uses in the English language. Since new words are constantly coming into use and some old ones become obsolete, large staffs are employed by publishers to improve dictionaries and to keep them up to date. Two of the most widely used abridged dictionaries are *Webster's New International Dictionary* and Funk and Wagnalls' *New Standard Dictionary.* A modern classroom is equipped with an up-to-date unabridged dictionary.

An unabridged dictionary is valuable not only for its comprehensive coverage of words but also for its introductory and appended material. For example, Webster's guide to pronunciation is a comprehensive and handy reference for the busy teacher. The "Explanatory Notes" and "A Brief History of the English Language" give valuable additional information. The appendix includes a list of arbitrary signs and symbols used in writing, abbreviations in general use, a pronouncing gazetteer (or geographical dictionary), and biographical dictionary.

The abridged dictionary is an abbreviated, or shortened, dictionary. Abridged dictionaries contain fewer vocabulary entries (in elementary-school dictionaries 25,000 to 40,000), less information about the words, very little introductory matter, and sometimes no appended material. In acceptable elementary-school dictionaries, the introductory, dictionary, and appended material should be readable and helpful.

Beginning in the elementary school, children should be taught how to evaluate dictionaries. In general, the buyer should beware of "bargain" editions. Those who react to labels rather than to actual values are inclined to believe that they have purchased the "best" when they own a *Webster.* Few purchasers realize that the term *Webster* is not copyrighted. The G and C Merriam Company, for example, manufacture or authorize the manufacture of authoritative dictionaries with a patented trademark to identify their *Webster.* The best bargain in an unabridged dictionary may be obtained by purchasing one generally approved for use in elementary schools, secondary schools, or colleges. The construction of a reputable dictionary is time-consuming and expensive; hence, it cannot be sold for the price of a good cigar.

Instructional Aids. The first prerequisite, of course, is a standard unabridged dictionary plus several abridged dictionaries for individual use. Additional materials for pupil use include:

Boyd, Jessie, and Others. *Books, Libraries, and You.* New York. Charles Scribner's Sons, 1941.

Getting Acquainted with Words. Chicago. Scott, Foresman and Company, 1937.

Getting Places with Words Chicago Scott, Foresman and Company, 1943.

Illinois Dictionary Study Program, Circular No 326. Springfield, Illinois Superintendent of Public Instruction, 1940

Lewis, E. E., and Others. *Adventures in Dictionary Land* Books One, Two, Three. New York American Book Company, 1936

Mott, Carolyn, and Baisden, Leo B *The Children's Book on How to Use Books and Libraries*. New York Charles Scribner's Sons, 1937.

Publishers of dictionaries have prepared a number of aids for the busy teacher. Some of them are noted here

Armstrong, Spencer *How Words Get into the Dictionary* New York Funk and Wagnalls Company, 1937.

Beaty, John O. *The Fascinating History of English Words* Springfield, Mass G & C Merriam Company, 1935

Darnall, Theodore *Dictionary Study* (A Guide to accompany Macmillan's *Modern Dictionary*) New York The Macmillan Company, 1937.

Dolch, E W. *Building the Dictionary Habit* (For use with the Thorndike-Century *Junior Dictionary*) Chicago Scott, Foresman and Company, 1935

The Foundation Book of Education Springfield, Mass G & C Merriam Company, 1938

Interesting Origins of English Words Springfield, Mass · G & C Merriam Company, 1938

An Outline for Dictionary Study (Based on *Webster's Collegiate Dictionary*) Springfield, Mass G & C Merriam Company

Powell, Frank V *Better Dictionary-Work Habits* Springfield, Mass G & C Merriam Company, 1935

Speare, M Edmund *Learning about Words* New York Funk and Wagnalls Company, 1937

Word Study. (A periodical) Springfield, Mass.. G & C Merriam Company

Basic Considerations The dictionary never ceases to be a helpful source of information. The many types of valuable aids in most dictionaries are not known to most adults It is highly important that

children be inducted into the use of a dictionary systematically and gradually. The following is a summary of certain considerations which merit reflection.

1. *Readiness* Pupil readiness for induction into the effective use of the dictionary should be developed through a systematic program which points previous learning toward that end. Readiness involves two major factors: language ability and needs. Through speaking, reading, and writing activities the child develops certain skills, abilities, and attitudes which contribute to "dictionary" readiness Through his use of a picture dictionary, he has learned to arrange words in alphabetical order and he has been made aware of the fact that a word may have more than one meaning. In his speaking and reading activities, he has been sensitized to the differences between speech sounds and to the differences between sounds and letters. In many types of language activities, he has learned that syllabication facilitates accurate pronunciation and correct spelling All of these and other language learnings contribute to the effective use of the dictionary for the identification of the pronunciation of a word and the selection of an appropriate meaning.

Not all children in a given fourth-grade class are ready for the use of an elementary dictionary. A child should have at least substantial third-grade-level language ability as a prerequisite By language ability is meant reading and writing, including spelling Premature introduction of the dictionary only serves to frustrate the child. On the other hand, many third-grade children can make effective use of an elementary dictionary In this respect, *a child's language ability, not his general grade placement, should be the basis for evaluating readiness for the use of a dictionary.*

One criterion of "dictionary" readiness is language ability; the other is needs The teacher does not decide on some bright sunny morning to teach *all* pupils how to use a dictionary. Instead,

interest in the use of the dictionary has been gradually built up from the child's first year of school. There have been many occasions when the teacher reported dictionary information to the boys and girls in the first, second, and third grades. It gradually dawns on the pupils that here is one way to solve certain language problems and, hence, to become independent. Pupil information regarding the uses of a dictionary is quite well developed before the systematic study of it is undertaken.

Extreme caution should be exercised in presenting pupils with materials which they are not prepared to use. Failure to observe this caution may develop pupil habits of ignoring important items of information. This means that only one item at a time should be taught. The average fourth-grade pupil, for example, is quite unprepared to use information regarding parts of speech and derivations.

In evaluating pupils' readiness for the systematic use of a dictionary, the following questions should be considered:

a. Does the pupil have needs which may be satisfied through the use of a dictionary?

b. Does the pupil have some appreciation of the types of information included in a standard dictionary?

c. Does the pupil understand the alphabetical arrangement of words?

d. Is the pupil aware of the syllabic divisions of words?

e. Does the pupil know how to use a glossary effectively?

f. Does the pupil know how to use the *key to pronunciation usually given at the beginning of the glossary*?

g. Does the pupil know how to interpret *accent and diacritical marks usually given in a glossary*?

2. *Dictionary Differences.* Dictionaries differ in such matters as the means of indicating accent and the sounds of vowels. After the child has learned to use one dictionary, he should be prepared to use other dictionaries commonly found in elementary schools.

3. *Meanings.* Adequate preparation for the use of the dictionary includes the ability to recognize the influence of context upon the meanings of words. It should be understood that the dictionary is a *record* of possible meanings. The lexicographer does not assign, or determine, meanings.

4. *Pronunciation.* It is more important to teach children how to *interpret* diacritical markings than to teach them how to determine when to use them. One of the best ways to build wrong attitudes and to waste pupil time is to have them spend time *copying* the diacritical markings for their spelling words. This appears to be a common practice in some schools, but it is without justification. This procedure doesn't even prepare the pupils to become lexicographers!

Location of Information. One of the important instructional jobs is to teach children how to locate information easily and quickly. When the child learns how to locate information in a glossary, index, encyclopedia, or dictionary, he has learned some basic skills required in the use of telephone directories, bibliographies, library files, and the like. Two important aids to the location of information in standard dictionaries are the alphabetical arrangement of the words and the guide words. A thumb index is also provided in some dictionaries.

1. *Alphabetical Order.* Since the words are arranged in alphabetical order in the dictionary, it is imperative for the pupils to know their ABC's. First, pupils should know that the words in the dictionary are arranged in alphabetical order. Second, pupils should learn that the words in a given group—e.g., the *a* group—are arranged in alphabetical order according to the second letters, third letters, and so on. That is, they should know that *about* comes before *across* and that *afraid* comes before *after*. This matter of alphabetical arrangement of words may seem very elementary, but a surprising num-

ber of able high-school students do not have this basic information

To further facilitate the location of vocabulary entries, the pupils should be taught how to estimate which part of the book to turn to First, they should be taught which groupings of letters occur in the first and last halves of the book. In one standard dictionary, the second half begins with the *j*'s, in another, with the *l*'s, and in a third, with the *m*'s Second, they may experiment with dividing the dictionary into thirds and fourths The ability to estimate where to open a dictionary for its location of a given word speeds up the process

2 *Guide Words* In dictionaries, telephone directories, encyclopedias, indexes, and the like, words are printed in boldface type at the top of the page to *guide* the reader in locating information These guide words are sometimes called "running titles" Usually there are two guide words at the top of the page, the first one is the first stem word on the page and the second, the last stem word on the page In most standard dictionaries, the first guide word is printed at the top of the first column; the second guide word at the top of the second column. This has the advantage of calling attention to the range of words on a single page The other procedure is the printing of two guide words above the first column of a left-hand page and above the second column of a right-hand page to indicate the first and last entries on two facing pages These differences in the placement and use of guide words should be kept in mind when teaching children to use these aids to the location of dictionary information

3 *Thumb Index* Unabridged dictionaries and some abridged ones have the alphabet cut into the pages so the reader may turn to a given section without opening the book A *thumb index* facilitates the location of dictionary information

Pronunciation One of the chief uses of a dictionary is for pronunciation purposes In standard dictionaries two gen-

eral types of aids are given: syllabicated vocabulary entries and respellings of key words. Through these aids, three keys to pronunciation are given: syllabication, accent, sound values.

1 *Vocabulary Entry.* The vocabulary entry usually is divided into syllables. Examples *buoy'ant, buf'fa lo* (*Webster's Elementary Dictionary*), *buoy ant, buf fa lo* (*Thorndike Century Junior Dictionary*); *buoy'ant, buf'fa-lo* (Funk and Wagnalls' *Standard Junior School Dictionary*). It will be noted that both syllabication and accent are given in the vocabulary entry as clues to pronunciation in two dictionaries

Sometimes the pronunciation of a word depends upon its meaning. Consider these words *record, rebel, contest, subject, object, concrete,* and *produce* In the Thorndike *Century Junior Dictionary*, only one entry is made for words of this type, but the two pronunciations are given in the respellings which are related by numbers to their definitions In *Webster's Elementary Dictionary* and Funk and Wagnalls' *Standard Junior School Dictionary*, two separate vocabulary entries are made. For example, the verb form of *record* (re cord' or re-cord') is entered first and the form which may be used as an adjective or noun (rec'ord) is a second vocabulary entry.

2 *Respellings* A second aid to pronunciation is the respelling following the vocabulary entry To interpret respellings, the pupils must understand syllabication, accent marks, diacritical marks, and preferred pronunciation.

a *Syllabication* Syllables are shown in both the main entry and the respelling. For example, the main entry for *warrant* is given this way: *war'rant;* the respelling (wŏr'ănt) The first step in the pronunciation of a word is to see how it is syllabicated

b *Accent Marks.* Dictionaries differ in the means used to distinguish between primary and secondary accent. In some dictionaries a *heavy* black mark, or tick (′) is used to indicate primary accent and a light mark (′) to indicate sec-

ondary accent. In other dictionaries, one light mark (´) is used to indicate primary accent and two light marks (″) to indicate secondary accent.

c. *Diacritical Marks.* The marks over the vowels give another indication of how to pronounce a word. In most dictionaries, the marks for the vowels are given in the respelling immediately following the main entry. For example, this information is given in Webster's dictionary on *vacancy:* vā′can cy (vā′kăn sĭ). The key words at the bottom of the page for this word include: āle, åccount, ĭll. All of the information for the accurate pronunciation of a word is given on two facing pages of the dictionary.

In Funk and Wagnalls' *Standard Junior School Dictionary,* two pronunciation keys are given across the bottom of the page. In Key 1, only the macron is used and only one symbol is used for each vowel sound. In Key 2, diacritical markings are used. Key 1 and Key 2 are given in separate lines running across the bottom of two facing pages.

In a discussion of the inadequacy of the English alphabet, Dorothy I. Mulgrave made this evaluation of diacritical markings (170, pp. 67–68):

The problem, as far as dictionaries were concerned, was partially solved with diacritical markings. There are two major difficulties encountered in these markings. (1) they are necessarily lacking in scientific precision because they are applied to unscientific and amazingly inconsistent spelling The following markings, for example, according to Webster's markings, all indicate what is actually one sound. ĕ in maker; ā in account; ă in sofa; ĕ in recent; ŏ in connect; and ŭ in circus. (2) If one does not know how to make the sound indicated in the key word, it is impossible for him to get an accurate pronunciation. An Italian, for example, might read the marking ĭ for the sound in *ĭt,* but continue to pronounce the word with the vowel sound in *eat* because he did not know how to make the sound indicated by ĭ

The following is the key to the diacritical marks used in the Betts and Arey spellers (21, p. 12). These marks are the ones used in *Webster's New International Dictionary, Second Edition,* unabridged, 1936, and the school dictionaries based thereon, namely, *A Dictionary for Boys and Girls* and *Webster's Students Dictionary* published by American Book Company. They are named here for the teacher's information, although the names do not need to be taught to children.

1. breve (brĕv) (˘) a curved mark used to designate short vowels; a short half-circle placed over a vowel to indicate its short sound

ă—tăp   ĭ—hĭt   ŭ—bŭt
ĕ—mĕt   ŏ—hŏt   o͝o—fo͝ot

2 macron (mākrŏn) (¯) a straight line used to designate long vowels.

ā—cāpe (kāp)   ī—cīte (sīt)   ū—cūte (kūt)
ē—mē   ō—hōpe (hōp)   o͞o—sho͞ot

3 modified breve (˄) a macron with a very short vertical line at the mid-point above it; sometimes called a perpendicular suspended bar

â—vacâtion (vâ kā'shăn)   ô—obey (ô bā')
ê—return (rê tûrn')   û—unite (û nīt')

4 circumflex (sûr'kăm-flĕks) (ˆ) two short lines forming an angle with the base directly above the letter

â—care (kâr)   ô—for (fôr)   û—fur (fûr)

5. breve circumflex (˅)

ǒ—soft (sǒft), cloth (klǒth)

6. tilde (til'dĕ) (˜) a "wavy" line above *e* followed by *r* in an unaccented syllable.

ẽ—maker (māk'ẽr), over (ō'vẽr)

7. one dot above ( )

a—grass (gras), dance (dans)

8 two dots above ( )

ä—arm (ärm), father (fä'thĕr)
ü—menu (mĕn'ü)

9. transverse bar (th)

th—this (this), clothe (klōth)

10 Italicized *a, e, i, o, u* with a breve

ă—account (ă kount')   ŏ—connect (kŏ nĕkt')
ĕ—silent (sī'lĕnt)   ŭ—circus (sûr'kŭs)
ĭ—chanty (chăn'tĭ)

11 Italicized *a* with one dot above

a—sofa (sō'fa); above (a bŭv')

12 *e* with a macron above and a hook below (hooked long *e*)

ę̄—here (h[ę̄r), interfere (ĭn'tẽr-fę̄r')

13 tie bar, a mark used to connect two letters (t͡u, d͡u, t͡u)

educate (ĕd'u͡ kāt), verdure (vûr'd͡ur),
nature (na'͡tur), virtue (vûr'͡tu)

d *Preferred Pronunciation* Most dictionaries indicate two pronunciations of certain words The first pronunciation given is usually the preferred one. For example *use* (vās, vāz), *water* (wŏ'tĕr; wŏt'ĕr), *encore* (äng kōr'; -kôr').

e. *Colloquial Pronunciation* In *Webster's Elementary Dictionary*, the pronunciation of words in ordinary conversation is given For example, this respelling is given for *creek*: (krēk; colloquial, krĭk)

Spelling. A standard dictionary is ac-

cepted as the authority on spelling. Four types of spelling aids are usually given: preferred spelling, syllabication for dividing the word at the end of a line, capitalization, and the use of a hyphen.

1. *Preferred Spelling.* Some words have two accepted spellings, with one preferred. The preferred spelling is usually given first in the vocabulary entry. For example, the word *theatre* is presented this way: the'a·ter, the'a·tre (Webster); the'a·ter, the'a·tre (Funk and Wagnalls); the a ter, the a tre (Thorndike).

2. *Syllabication.* One of the problems frequently encountered in writing activities is that of how to divide a word at the end of a line. As soon as the pupils have a basic understanding of how words are divided into parts called syllables, they should be given guidance in this respect. By observing the teacher as she checks her suggestions with the dictionary, the pupils develop desirable attitudes toward its use. When the children learn to use the dictionary themselves, they achieve independence. Teaching the child to divide words at the end of a line according to their syllabic divisions need not be complicated. Interpretation of these situations in reading activities and the correct division of words in writing activities may be used to re-enforce this learning.

3. *Capitalization.* Very early the child should learn that the dictionary indicates when a word is always spelled with a capital letter.

4. *Use of Hyphen.* The problem of how to spell compounds is solved by consulting a standard dictionary. It is a perplexing problem to know when one is dealing with a solid compound, a hyphenated compound, or a two-word compound. In most standard dictionaries, the hyphen is indicated in the vocabulary entry, as in nar'row-mind'ed (Webster) or nar row-mind ed (Thorndike).

The single hyphen is used in Funk and Wagnalls' *Standard Junior School Dictionary* to indicate syllable divisions. The German double hyphen (·) is used in hyphenated words.

Meaning. Pupils cannot be expected to master the meanings of words by means of the dictionary alone, but the dictionary is a valuable aid in arriving at meanings. It has been pointed out in this discussion of vocabulary development that the pronunciation of a word depends, in part, on its sentence setting. This is especially true of the meanings of words. But the language setting for a word doesn't reveal the meaning of a word. Meaning exists in the nervous system of the learner; that is, in the relationship between words—spoken or written—and experience. In the dictionary, one finds recorded uses of words. Hence, the dictionary supplies clues to the semantic identity, or meaning, of a word.

The following discussion of one problem in the preparation of a dictionary is taken from *Language in General Education* (153, pp. 27–29):

The dictionary is another of our linguistic devices which, if misunderstood, can encourage the illusion that words are separate and independent units. The alphabetical listing of words in the dictionary does not immediately suggest that words are normally related in a verbal context But the purpose of the dictionary can best be understood from the modern lexicographer's process of arriving at his definitions. He is confronted with the same type of difficult task as the biologist who wishes to study the functions of individual cells. Both of them focus attention upon a selected element, but they must take this element as they find it, in the environment of other cells or other words. This process of tentatively isolating an element for intensive study is a necessary procedure in any task of analysis

From observing the behavior of *house* in a number of verbal contexts, the dictionary-maker focuses on the relatively stable and constant functions of the word By his general definition of *house*, however, he does not assert that the word *has* or *should* have no unique or less stable meanings in each particular context. He cannot take account of the highly variable factors that enter into the total meaning of *house* in every context, factors that would include each writer's purpose and intent, his mood, his attitudes toward himself and the

role he is playing. toward his readers, toward his subject matter If the lexicographer were to attempt such a complete formulation of the meanings of *house* in all of its contexts, his description of this one symbol would obviously fill several volumes, and he would be compelled to bring out a fresh edition every month, in order to cover the many new contexts in which *house* would acquire special new meanings It is precisely these variable unique meanings that he must exclude from his definition of *house* if it is to have any general application to the relatively stable meanings of the word in its various contexts He is not, however, by so doing giving "rules" for the use of the word

The dictionary, then, clearly cannot perform the task of contextual interpretation for the student It simply can help him to limit the field of the word's possible senses Under the guidance of a teacher, the student must do for himself the work of interpreting words in their natural environment of other words In this way he can be encouraged to acquaint himself with new symbols and to examine his old words in new contexts The teacher who is aware of the patterned and dynamic character of language will realize that the student, in his process of interpretation, is not merely adding new words to his vocabulary or new passages to his repertory of reading By discovering the unique and multiple meanings that a word may have in specific passages, the student will be increasing his control over language The symbols in his language, like the cells of a living organism, can grow by extending their functional range and by taking on sharper and more differentiated functions If the interpretation of words in context has any value beyond itself, it should develop the student's language into a more flexible and discriminating symbolism for expressing his own thoughts and feelings and for understanding those of other people And if this verbal process of expressing and understanding has any value beyond itself, it should develop the student's ability to discover these thoughts and feelings within his own experience, where in turn he will find the realistic basis for testing the validity of language symbols

The time has passed when children abruptly are told to "look it up in the dictionary" when they don't know the meaning of a word Instead, systematic guidance is given in using the various dictionary aids to meaning. The chief aids include definitions of prefixes, suffixes, root words, derivatives, abbreviations, and idioms; synonyms; verbal illustrations; and illustrations When the child has achieved an understanding of the grammatical classifications of words, he may be helped by a dictionary in which the parts of speech are indicated By learning how to use cross references, additional clues to meaning may be obtained And, lastly, some knowledge of the etymology of a word may provide an additional understanding of the meaning of it for pupils in the upper grades and high school

1 *Definitions.* In most elementary dictionaries, the definition, or definitions, follow the part of speech and inflectional forms The length of the entry depends, in part, on the number of definitions For example, in *A Dictionary for Boys and Girls* (Webster), only one definition is given for *graphite* and several are given for *commission.*

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graph'ite (grăf'īt), *n.*   Soft black carbon with a metallic luster, used for lead pencils, etc.

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com·mis'sion (kŏ-mĭsh'ŭn), *n.* 1. An order or instruction authorizing a person to perform a duty, etc., also, the duty, etc , thus authorized. 2. A certificate that gives rank and authority to military or naval officers. 3. A group of persons given orders and authority to perform a particular duty, etc ; as, a *commission* was elected to govern the city. 4. A sum of money deducted from an amount received by a person who sells something for another; as, the agent's *commission* was $1,000. 5. The act of a person who commits; as, the *commission* of a crime. — *in commission.* 1. In or into use; in service, as, to put a ship *in commission.* 2. In condition for use or service; as, our car is *in commission* again. — *out of commission.* Out of service; not fit for use or service.

com·mis'sion (kŏ-mĭsh'ŭn), *v.* 1. To give a *commission* to. 2. To put a ship into service.

Children require guidance in selecting the right meaning for a word Two situations merit special attention: First,

one spelling form of a word may be given only one vocabulary entry, with several meanings. For example, more than one definition is given for *bomb* and only one vocabulary entry is made. Second, several vocabulary entries may be made for different words with the same spelling, and more than one definition may be given for each entry. For example, four or five vocabulary entries are made for *bound*, depending upon the part of speech, or grammatical classification, and origin. Separate entries are usually made for homographs (i.e., words spelled alike, but of different meaning and derivation). In the first situation, the child must read through the definitions of one entry; in the second, he must consider the definitions of more than one entry.

The sequence of definitions is usually made on one of three bases: First, the commonest, or most general, meaning may be listed first, with the least common, or most unusual, given last. This arrangement makes it possible for elementary-school pupils to identify a common meaning very quickly, and to get a running start on unusual meanings by reading down through the various definitions. Second, the definitions may be given in a so-called logical order, or historical arrangement; that is, with the oldest usage given first and the more recent meanings following in order of their appearance. In some dictionaries, the current usage may be given first. Third, in some standard dictionaries prepared for use in elementary schools, the sequence of definitions is determined also by the part of speech. For example, the definition may be classified in terms of nouns, verbs, adjectives, and the like. In one dictionary, the parts of speech are indicated only at the end of a vocabulary entry by means of a series of abbreviations. These differences in dictionary presentations of definitions must be kept clearly in mind by the teacher. Specific guidance should be given in the identification of the definition sequence in a given dictionary so that the pupil may make use of it in selecting and evaluating them.

The production of a dictionary for elementary-school pupils requires the services of more than one expert lexicographer, or compiler. In the first place, the information given must be authentic. Hence, specialists in all major fields of human endeavor must contribute. Second, the information given must meet the everyday needs of children. For example, the words defined should meet the frequent and crucial needs of pupils; the number of definitions given must be reduced to those likely to be needed; the phrasing of definitions must be in terms of pupil experience and general language ability, and so on. This requires the assistance of educators and psychologists who are experienced in dealing with these problems. This is also another reason why a considered evaluation of dictionaries should be made when parents and teachers select them for children.

2. Synonyms Two words never have the same meaning, but some words may have nearly the same meanings. Synonyms are given in addition to definitions. The use of synonyms is justified in two ways: First, the synonym may be a more common word, and therefore better known, than the main vocabulary entry. Hence, the meaning of the word may be made clearer. Second, one of the synonyms may be a better word to express an idea than the word under consideration. This use of synonyms in the dictionary contributes to vocabulary enrichment and to careful differentiation between shades of meanings.

Synonyms are indicated in various ways. For example, in the Winston dictionary, the synonyms for *need* (syn. n. necessity, want) are listed last. The same procedure is used in Funk and Wagnalls' dictionary (e.g., Syn: necessity, requirement, want). In the Webster and Thorndike dictionaries, the synonyms are given with the definitions. The child must be carefully guided in identifying both definitions and synonyms.

STUDYING THE LIFE CYCLE OF A MOTH

Clark M Frazier, Bernice Bryan   *Cheney, Wash*

3 *Verbal Illustrations* A third way of identifying the specific use of a word is provided by means of phrases and sentences employing the word For example, Thorndike gives this as one of his illustrative sentences for *nervous* "A person who has been overworking is often nervous." In Webster's dictionary this illustration is used for one meaning of *negotiate* ". . . as, the runner *negotiated* the fence "

4 *Illustrations* Pictures, drawings, maps, and other pictorial aids to meaning are given for two reasons to present in a minimum of space essential facts and to add interest. A picture of a *muskrat* or the diagram of a *fulcrum* is a far better means of getting across meaning to the child than several paragraphs of words A good dictionary contains a large number of illustrations.

5 *Cross References* Sometimes the meaning of a word may be made a little clearer by referring to another vocabulary entry. These cross references are made to guide the reader to additional or different types of information First, the reader may be instructed to "see diagram" or "see the colored pictures of *butterflies*" Second, the reader may be guided to irregular forms of verbs For example, after the main entry and the respelling of *rode* this cross reference may be given "see *ride* " Third, the reader may be referred to another word with the same meaning that has been carefully defined. The cross reference for *molten* may be stated, *"old* past part of MELT"; or, for *Oxus*, "See AMU DAR-YA" Fourth, the reader may be referred to a variant spelling For example, after the

main entry for *Pigmy*, this note may be given: "Same as *Pygmy*, *pygmy*." Some uses of cross references—as, for example, a reference to an illustration—should be learned at about the fourth-grade level; other uses, as soon as the pupil has a need and has the necessary language background.

6. *Affixes.* Special attention is usually given to prefixes and suffixes in standard dictionaries. Separate entries are given for both.

7. *Derivatives.* The dictionary is a very real help to the child in dealing with derivatives. In general, derivatives usually are given in two ways. run-on entries and main vocabulary entries. When the meaning of a derivative may be easily inferred from the definition of the base word, it is printed in heavy type or italics at the end of the definition. In two elementary-school dictionaries, the word *arrangement* is given in a run-on entry (e.g.,—arrangement, n); in two other dictionaries, a main entry is given for it.

In dictionaries prepared for use in elementary schools, derivatives are usually given main entries under one or two of the following conditions. First, when the meanings are not likely to be inferred from the definitions of the root word; second, when important derivatives have come into very common use; third, when the derivatives have been given special meanings. For example, three elementary dictionaries explain the word *doubtless* in a main entry; one, in a run-on entry. All four of these dictionaries provide a main vocabulary entry for the words *farmer* and *admittance*.

B. *Inflectional Forms.* Regular forms of words are not entered. For example, no entry is made for the plural form of *book* in four widely used elementary-school dictionaries. Irregular plurals usually included under the main entry for the singular form. For example, in a dictionary the word *babies* is given after the respelling [pl. BABIES (blz)], in a second dictionary, a similar presentation is given with complete respelling; and in

two other dictionaries, the plural form is merely given in brackets. Irregular verbs are also included. For the word *mice*, two dictionaries give this information: "n., pl. of MOUSE," "n. plural of *mouse*," "plural of *mouse*," "more than one mouse, n. pl." For *caught*, three dictionaries give "past tense and past part. of *catch*"; one dictionary, "See catch. He *caught* the ball *pt.* and *pp.* of *catch*." The comparison of adjectives and adverbs is usually given immediately after the main entry. For example, in three dictionaries this information is given after *better* "adj ; comparative of *good*" and "—adv.; *comparative* of *well*." In a fourth dictionary, no information of this type is given It will be noted that inflectional forms are usually indicated by means of italics or small capital letters.

9 *Parts of Speech.* In most dictionaries, changes in grammatical classification, or the parts of speech, follow the respelling. However, in one elementary-school dictionary the parts of speech are given in a series of abbreviations at the end of the definition. As indicated above, the definitions are often classified in terms of parts of speech. In the *Webster's Elementary Dictionary*, the abbreviations for the parts of speech are given across the bottom of the right-hand pages; the key to pronunciation being given on the left-hand pages.

10 *Abbreviations.* Some clues to meaning are obtained through grammatical classifications of words, the level of English to which the word belongs (e.g., colloquial, dialect, provincial, obsolete), word origins in particular fields (e g., algebra, biology, etc.), and derivations (e.g., Anglo-Saxon, Latin, etc.). In order to save space abbreviations are used. These are usually explained in the introduction; however, one dictionary gives them at the bottom of every right-hand page so they are available for ready reference. The following is a list of the abbreviations commonly used in dictionaries prepared for use by elementary-school pupils.

Abbreviation	Term
a. or adj.	adjective
adv	adverb
cap	capital
cf	compare
comp	comparative
conj	conjunction
etc	et cetera
fem	feminine
ι	intransitive
i e.	that is
interj	interjection
masc	masculine
n	noun
neut	neuter
pl	plural
poss	possessive
pp	past participle
ppr	present participle
prep	preposition
pron.	pronoun
p t	past tense, preterit
sing	singular
superl.	superlative
syn	synonym
t	transitive
v	verb
vi.	verb intransitive
vt	verb transitive

Abbreviations for words are given main vocabulary entries For example, P M — the abbreviation for *past meridian*, meaning *afternoon*—is given after the words beginning with pl, as in *plywood* or *Plymouth*

11 *Idiom*. The terms *idiom* and *idiomatic* are used to designate constructions in good general use "which do not conform to the customary analogies of the language" The words are conoined in such a way that the meaning of the whole phrase is different from what would usually be designated, that is, the meaning cannot be identified from the ordinary meaning of the word, or words Examples· *stood in awe, how do you do, to be hard put to it; break the ice, by the way; to put one's foot down; agree with* (i e , to be good for); *well-to-do, watch out, turn turtle.* It is important for the child to learn to interpret these phrases as wholes

To explain special meanings, idiomatic phrases are usually printed in heavy type in the main entry. For example, among the definitions for *laugh*, two of four elementary-school dictionaries include *laugh in* (up) *one's sleeve.*

12. *Etymology*. The study of word derivations—their structure and history—is called etymology. Some authorities estimate that sixty per cent of all English words are Anglo-Saxon in origin; thirty per cent, Latin; five per cent, Greek; and the remaining five per cent from other sources, including Hebrew, Dutch, Spanish, etc. Derivations are not given in dictionaries designed for use in elementary schools They are given, however, in unabridged and some high-school dictionaries In these books they are given immediately following the respelling, or pronunciation The following example was taken from *Webster's Students Dictionary*, copyrighted by G. & C. Merriam Co and published by American Book Company:

fu'rı ous (fū'rĭ ŭs), *adj.* [fr OF , fr L. *furiosus, fr furia rage, fury*] 1. Frantic with passion or fury frenzied 2 Rushing, violent; as, a *furious assault* — fu'rı ous ly, *adv*

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Procedures. The three chief uses of the dictionary are for pronunciation, spelling, and meaning In developing pupils' skills, abilities, and attitudes pertinent to these three purposes, the teacher insures a fourth set of skills; namely, facility in locating dictionary information. Hence, the dictionary habit should be built on a firm foundation made from a combination of skills location of information, pronunciation, spelling, and meaning These are compounded and held together by interests

Knowing *what* information is given in a standard dictionary and knowing *how* to locate and use that information does not guarantee the dictionary habit Hence, the master teacher capitalizes on learning situations which foster an interest in using the dictionary. In other words, the expert teacher provides guidance on *how* to use a dictionary and *what*

may be found therein *when* the need arises. By this means, desirable attitudes toward the use of the dictionary are promoted. Interest is the element of highest potency in a learning situation.

The preceding discussion has pointed out the many types of information available in the dictionary, and some of the problems met in finding it. If dictionary experiences are to be supercharged with interest, the learner must have real needs to be satisfied therefrom and he must have the capacity to learn how to respond to guidance in this type of situation In short, there must be an over-all readiness to profit from systematic instruction in the use of a dictionary.

Other things being equal, an individual finds those experiences satisfying which challenge his ability. If the child is merely tossed into the middle of a dictionary without a proper build-up, he is likely to be frustrated. Frustration contributes to attitudes of withdrawal To avoid frustration and to develop attitudes of approach, these factors should be given consideration: First, the child should exhibit readiness in the sense that he has needs to be satisfied through the use of a dictionary. Second, the child should be ready for dictionary instruction in the sense that he has the necessary level of general achievement, especially in language. This means that a fourth-grade class will be grouped for this instruction. new groups being formed as rapidly as the pupils achieve readiness. Third, the beginner should be taught one thing at a time. For example, by observing the teacher's use of a dictionary, he should be familiar with the types of information available so that one of the first instructional jobs may be to teach him to locate information. Scattered learning may be avoided by concentrating on one aspect of dictionary usage until the pupil has sufficient information and reasonable skill to use this new step toward independence. Fourth, the pupil is gradually inducted into the use of a dictionary. Independence is achieved through systematic guidance. Fifth, the pupil is taught *when* to use the dictionary as well as *how* to use it. A dictionary is used *when* the information is likely to be given. For example, a comprehensive presentation of information on a given item may be found in an encyclopedia or science book rather than in a dictionary. Hence, it is crucial for the pupil to understand the limitations as well as the possibilities of dictionary information. A dictionary is used *when* the pronunciation, spelling, or the meaning of a word is in doubt. It is used on the spot Needs are identified in *silent* reading situations. These are a few of the matters to be considered in generating interest and in avoiding frustrating situations.

One of the most useful sources of information for the pupil is a dictionary It is more than a reference book; it is a truly basic textbook in school and an authoritative guide in life outside the school. The selection of dictionaries and dictionary instruction ranks high on a scale of relative values.

A note should be made at this point regarding the use of a dictionary in a directed reading activity where basal textbooks are used. (See chapter on Directed Reading Activities.) There are five essential elements in a directed reading activity: orientation, preparation or readiness; introductory, or survey, reading (always silent!); comprehension or vocabulary development (needs identified during the silent reading); re-reading (either silent or oral, or both); and follow-up. The dictionary serves crucial needs in the vocabulary development and in the follow-up.

By the time a pupil has achieved "third-reader"-level reading ability and, therefore, is ready for instruction at the "fourth-reader" level, he can read long selections to the tune of general motive questions. During the silent reading, the child is taught to write down (perhaps in his vocabulary notebook) words he cannot pronounce or does not comprehend. This list will not be extensive for

two reasons: First, if he is in the right group he will not encounter more than one "new" or unknown word in twenty running words. Second, he uses previously learned word-recognition skills (context clues, phonetic analysis, structural analysis, etc.) to identify quickly the pronunciation and meaning of most of these "new" or unknown words. For these two reasons, at least, a selection of one thousand running words should not yield more than five to ten words which must be looked up in the dictionary.

Immediately following the silent reading, the teacher lists on the blackboard the words which caused difficulty for most of the group. (Difficult words for only one or two members of the group are dealt with briefly at this time, but more attention is given to them in the follow-up.) At this point, individual pupil dictionaries are used. First, the word is identified in the selection. Second, the word is located in the dictionary. The teacher observes pupil competency in estimating what part of the book to turn to, in using the guide words to turn quickly to the page on which the vocabulary entry is located, and in using alphabetical order to locate quickly the entry on the page. Third, if the pronunciation was causing the difficulty, attention is directed to the vocabulary entry. If the pronunciation is readily identified from the syllabicated entry, the problem is solved and time is saved. However, if the word is a pronunciation "demon," it may be necessary to turn to the respelling. When the respelling and the key word do not permit a ready identification of the pronunciation, the teacher may write the respelling on the blackboard and guide the children in the use of the key words at the bottom of the page for pronouncing it, syllable by syllable. Then the word is pronounced as a whole with the correct accent. The pupils have had an illuminating and satisfying experience. Fourth, the part of the selection in which the word was used is reread. Usually the general meaning of

the word is estimated from the sentence setting and previous experience. Fifth, the definitions, illustrations (verbal and nonverbal), and, if necessary, the cross references and run-on and run-in entries are evaluated in terms of the use of the word in the selection to arrive at the meaning. Figurative and literal meanings may be discussed. For example, the pupils may find that the word is part of an idiomatic phrase. This study of the meaning of the word provides a second satisfying experience for the pupils. These five steps demonstrate the use of a dictionary at this point in a directed reading activity, and they promote comprehension of the selection in question.

The dictionary is used to promote independence at a second point in the directed reading activity; namely, in the follow-up. Since follow-up activities should be rich and varied, both reading and writing may be required. Therefore, the pupil may use the dictionary to identify the spelling and correct usage as well as for pronunciation and meaning. It will be noted that correct usage in writing activities parallels comprehension in reading activities.

So far as the reading facet of language is involved, the follow-up should be designed to clear up individual problems of pronunciation and meaning. The pupil acquires basic skills in the use of the dictionary during that part of the directed reading activity in which vocabulary development is emphasized. In the follow-up and other school activities, he needs additional guidance to improve his versatility in dictionary usage.

Guidance in the use of a dictionary is given wherever it is used. Undoubtedly, most dictionary needs arise in science and social science activities. Hence, this is where attitudes, skills, and abilities are developed. In some school situations where instruction is departmentalized (usually compartmentalized!), the teacher of science erroneously assumes that instruction in the use of the dictionary is the sole responsibility of the

language, spelling, or reading teacher. Beginning at the "fourth-grade" level, guidance in the effective use of the dictionary is a perennial problem for all teachers.

The school program in this respect will be strengthened by close co-operation with the home. Parents are pestered by house-to-house canvassers of dictionaries and sets of books for children. These salesmen do not always have authoritative, up-to-date, or worth-while books. Parents want guidance; in fact, they often ask for advice. Furthermore, most parents have the problem of birthday gifts and the like. Here is an opportunity for a type of parent guidance which will pay dividends in the home and in the school. One parent-teacher meeting each year might be devoted to a display of books and to a discussion of them. (Book week provides one of these opportunities.) One meeting at least every other year may be profitably used to discuss abridged and unabridged dictionaries and to evaluate them. The writer has found that this can be one of the best meetings of the year. Teachers might be surprised to learn how many children beg their parents to buy them dictionaries for home use!

The following descriptions of dictionary activities are offered at this point as suggestions. Since there are merely suggestions, they should be evaluated carefully and used judiciously. At all times, the teacher must bear in mind that skills are useless unless they are accompanied by desirable attitudes. These suggested activities are not used for mere drill, unrelated to functional situations.

1. *Discovering the Alphabetical Arrangement of Words.* After the pupils have acquired some appreciation of the value of a dictionary, one of the first steps is to find out how the words are arranged. The first vocabulary entry is found on page 1 of all standard dictionaries. The pupils are directed to open their dictionaries at this page and to examine it. Attention is directed to the letter with which all words begin on that page. Succeeding pages of the *a* group are examined in like manner. Following this discussion, attention is directed to the *b* group; the *c* group; and so on until the pupils have a basic understanding of the alphabetical arrangement of words. The amount of time required for this activity will depend upon previous experiences with indexes, glossaries, and the like.

In order to use the dictionary effectively, the pupil must soon learn how words beginning with the same letter are arranged. Further examination of vocabulary entries should reveal this information. Pupils working at the "fourth-grade" level of language ability will find it necessary to know how to arrange words in alphabetical order according to the first and second letters.

2. *Identifying Alphabetical Order of Letters.* One of the first steps in teaching alphabetical order of words is that of familiarizing the child with the order of letters. Of course, one of the best ways to clinch this learning is to have something worth while to alphabetize, such as the classroom library-card file. However, children may be motivated to engage in a moderate amount of practice. Teaching-testing devices may be oral or written. For example, the teacher or a child may say a letter (e.g., *d*) and a pupil responds with the preceding one and the following letter (e.g., *c, d, e*). This response should be so automatic that it is given without hesitation.

Teacher-prepared materials may be written on the blackboard or duplicated for use. The following is an example:

Directions: On the lines below, write the letter that comes before and after each of the following letters:

1. __ b __   2. __ m __   3. __) __

The above procedure may be varied as follows:

Directions: Fill in the missing letter on each line.

1. d __ f   2. m __ o   3. x __ z

3. *Identifying Words in Alphabetical Order.*
After the group understands the alphabetical arrangement of words, some practice should be provided in arranging
words in order according to the first letter Since learning is effective to the degree that it is motivated by learner needs,
these activities should be based on necessities For example, the group or individuals may be keeping a glossary of new
terms in science or social science and,
therefore, need a basis for classifying
words for quick reference Words used
for practice should be selected from those
with which the pupils are working

Pupil ability to classify words according to the first letter may be appraised
this way

Directions Cross out the words not in
alphabetical order

act	nap	finish
bite	sugar	grade
candy	month	witch
finger	order	hardly
dozen	point	princess

A variation of the above testing technique is given in the following example

Directions Some of the words in each
group below are in alphabetical order and
some are not Write "yes" on the blank line
at the left if the words are in alphabetical
order Write "no" if they are not correctly
arranged.

____ 1 hardly rules packed sheep
____ 2 means passed seat thread

Similar activities may be used to appraise the ability to classify words according to second letters, third letters,
and so on. However, these activities are
of the teaching-testing type and, therefore, are not substitutes for alphabetizing
words in normal classroom situations

4. *Estimating Location of Entries* The relatively simple matter of locating information quickly should not be overlooked. When the pupils learn a few easy
tricks, they readily use these time-savers
Bookmarks may be used to indicate halves, quarters, or
thirds of a dictionary. Following this
division of the book, the pupils may obtain answers to these types of questions:
What letter did you find in the middle of
your dictionary? How many letters did
you find in the first half? In the last half?
In the first quarter? And so on. These
questions may be reversed this way: In
which half did you find the letter *h*? Con

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siderable interest may be developed in seeing how quickly and accurately pupils may turn to a given word.

5. *Using Guide Words.* After the pupils understand the alphabetical arrangement of words, systematic instruction should be given on the use of guide words. If the pupils have not already commented on the guide words at the top of the page, these "running titles" should be examined to determine their significance and use.

Two steps may be followed in teaching the pupils to locate vocabulary entries quickly. First, they should know their alphabet backward and forward so that they can turn quickly to a given word grouping. For example, if they wish to locate the word *nebula*, they will turn to the middle of the dictionary. Second, they should know the alphabetical order so well they can use the guide words to turn quickly to the page on which a given vocabulary entry is to be found. For example, in one dictionary, the word *nebula* will be found on the page with these guide words: *nautical, neck,* in another dictionary, these guide words, *near-by, need.*

Systematic provision should be made for small-group instruction in the use of guide words to locate vocabulary entries. Direct explanation by the teacher and teacher-pupil discussion may be followed by practice in looking up words of interest. While special *attention* will be given to the rapid location of entries, the activity should be made meaningful by evaluating the information given in terms of the specific use of the word in its source.

6. *Finding Words in the Dictionary.* The best situation for teaching pupils to locate words in the dictionary is that in which they have needs to be satisfied. However, an occasional speed test may be entered into with considerable enthusiasm. For this purpose, the pupils are given a list of words to find in the dictionary. A five- or ten-minute time limit is set; the score is the number of words accurately located. The pupils locate

each word and write the page number on which it is found after the word. One pupil or the teacher may serve as "coach" to detect points of inefficiency and to provide subsequent "coaching" on how to speed up the process

7. *Discovering Pronunciation Aids.* When unknown words are identified in reading activities, the pupils may be encouraged to use their location skills for identifying the vocabulary entry for the word in question The discussion, then, should be directed to the pronunciation aid, or aids, given in the vocabulary entry. Previous experiences with syllabication may be used to identify its pronunciation. Usually someone in the group will raise a question regarding the respelling following the vocabulary entry. At this point, time should be provided for pupil discussion of the respelling. They will note that the letters used in the respelling are not always the same as those in the vocabulary entry. Following this, practice should be given on using the key words to pronounce the word. Time spent on these pronunciation aids can be both profitable and interesting.

If the problem does not arise with this first contact, the interpretation of preferred pronunciations and spellings should be dealt with in a similar manner at another time. The right introduction to this use of a dictionary can go a long way toward developing desirable attitudes.

8. *Learning Pronunciations.* Needs for determining the correct pronunciation of a word should be identified in speaking and reading activities. The interpretation rather than the use of diacritical marks should be emphasized. Occasionally a pronouncing bee or specially prepared seatwork activities may be used to appraise pupil progress. This may be done by presenting pupils with respelled words which they are to pronounce or to identify in writing by giving the word. Example:

Directions: After each respelling, write the word.

Respelling	Word
mĭs'chĭ vŭs	(mischievous)
prĭz''n	(prison)

parlour	parlor
theatre	theater
trademark	trade mark

9 *Using Key Words* In order to appraise the pupils' ability to use key words, the following type of activity may be employed The word or the vocabulary entry form of the word may be substituted for respelling

Directions After each respelling, write the key words that help with the pronunciation

Respelling	Key words
fōm	(old)
rĕ vĕlt	(event, old)

10 *Finding Preferred Pronunciations* To appraise the ability to identify preferred pronunciations, the following type of activity may be used

Directions Underline the preferred pronunciation for each of the words

Word	Preferred Pronunciation
fiery	fī'rĭ, fī'ĕr ĭ
coyote	kī ō'tē, kī'ōt

11. *Checking on Pronunciation Habits* During oral language activities the teacher keeps a record of words often mispronounced For example, in oral reading, the teacher notes the pronunciation of words such as library, February, and recipe. At a special period set aside for the purpose, these words are written on the blackboard as a basis for pupil discussion of correct pronunciation One word at a time is considered The dictionary is consulted for correct or preferred pronunciation and for common uses of the word Sentences using the words are dictated by the pupils to emphasize pronunciation in a sentence and correct usage.

12 *Finding Preferred Spellings*. To appraise the ability to identify preferred spellings, this procedure may be used

Directions Underline the preferred spelling of each of the following words. Use your dictionary

cookie	cooky
councilor	councillor
counselor	counsellor

13. *Discovering Arrangement of Definitions.* In order to locate information quickly and to make the most effective use of definitions, the pupils should spend some time in discovering the order, or sequence, of definitions in the dictionary used If the definitions are arranged according to estimated frequency of usage, the beginner in dictionary usage should discover this arrangement under teacher guidance and he should be given suggestions on how to make use of it. This may be done by discussing the definitions for interesting words of more than one meaning Of course, the classification of definitions according to parts of speech will have little significance for the child until he has the necessary background in elementary-school English However, this instruction should be tied in with the evaluation of dictionary definitions as the information is acquired

14 *Selecting Appropriate Meanings.* Since more than one definition is given for most entries in the dictionary, the pupil will require guidance in selecting the right meaning The following type of activity may be used to appraise this ability

Directions On the blank line before each sentence, write the number of the dictionary definition that tells about the use of the underlined word in each sentence

___ 1 Bill, the trapper, made his <u>annual</u> trip to the trading post

___ 2. The kind old lady was <u>moved</u> to tears by Jim's kind act

15. *Studying the Meaning of Idiomatic Phrases.* Pupils may be interested in the meanings of idioms by having them note and keep a record of interesting phrases The dictionary may be used as a final check on their estimates of meanings Lists of idioms such as the following may be made:

All at sea
To take the bit in one's teeth

Well in hand
To have an ax to grind
A chip off the old block
To hang about
To take after

Then, too, idioms with similar meanings may be listed in pairs. Example: a chip off the old block; to take after

Another interesting activity is to think up idioms to express ideas. Example:

Idea	Idiom
to be hypocritical	two-faced
to progress	to get ahead, to go ahead
to become excited	to lose your head

16. *Finding Synonyms.* Synonyms are given in a standard dictionary as clues to word meanings and to correct usage. The following is an example of an activity to stimulate interest in synonyms, to appraise knowledge of synonyms, or to test the pupils' ability to find synonyms in a dictionary.

Directions: There are five words after each sentence. Draw a line under one of the five words that may be used as a synonym for the underlined word in the sentence.

1. John's reply was *irrelevant.*
   partial; unfounded, unrelated, applicable; biased

2. Mary gave an *optimistic* report on the progress of our project
   dreaded, cynical; pessimistic, deplorable; hopeful

All the words used should be selected from the children's reading vocabulary to relate the activity to needs. The following references are additional aids for the busy teacher.

Allen, F. Sturges. *Allen's Synonyms and Antonyms.* New York Harper and Brothers, 1938.

Crabb, George. *Crabb's English Synonyms* New York: Grosset and Dunlap, 1917.

Mawson, C. O. Sylvester. *Roget's Thesaurus of the English Language in Dictionary Form* Garden City, New York Garden City Publishing Company, Inc., 1938.

Webster's *Dictionary of Synonyms.* Springfield, Mass : G. & C. Merriam Company, 1942.

17. *Finding Word Uses.* Studying dictionary definitions and evaluating them in terms of sentence settings is one way to develop vocabulary. A second way is to reverse the procedure by having the pupils identify the different uses of a word in the material under consideration For example, the pupils may find the word *style* used to designate a part of the pistil of a flower, a way of speaking, a way of playing a game, or a fashion of dress. This identification of word use is an interesting means of developing pupil awareness of the effect of the interconnectedness of words upon the meaning of a given word To be most effective, this calling of attention to shades of meaning should be done systematically.

18 *Checking Correct Usage.* The elementary-school pupil needs systematic guidance in correct usage For example, the word *walked,* a general term, is often used when another word (e g , *raced, slouched, strutted, ambled, tramped, gypned, trudged, tiptoed, marched, stalked, hiked*) would better describe the action. The use of more nearly exact words should be pointed out in reading activities and emphasized in writing activities. Usage may be checked in the dictionary.

To appraise pupil ability to discriminate between exact and vague usage or between correct and incorrect usage the following type of activity may be used:

Consult your dictionary to decide which of the two words in each sentence should be used Cross out the word that should not be used

Bill was $\begin{array}{c}\text{anxious}\\\text{eager}\end{array}$ to visit the airport.

Mary has a $\begin{array}{c}\text{gorgeous}\\\text{becoming}\end{array}$ new dress.

19 *Studying Derivations.* A few advanced pupils in the elementary school may be intrigued by the derivations given in the unabridged dictionary and in a few abridged dictionaries. These pupils may wish to undertake a small research proj-

ect on this problem and to report the findings to the class. This activity may produce a few humorous high lights as well as develop an appreciation of this item of dictionary information.

To interpret etymological information, the pupils will need access to the meaning of abbreviations (e g, Gr for Greek) and the like For example, *biography* is a word usually considered For this word, the following information is given in *Webster's New International Dictionary* [Gr *biographia*, fr *bios* life + *graphein* to write See QUICK, GRAPHIC]

Kinaesthetic Techniques

A review of this chapter on vocabulary development will reveal the emphasis on the association of meaning with printed symbols by giving the child certain sound and visual clues The value of these procedures for the majority of the school population has been demonstrated Many children have little difficulty with retention of word learning when taught by traditional methods However, children *do* differ from one another They differ in rates of learning, in levels of achievement, in interests, and so on. These differences are recognized in an ever increasing number of schools One difference is often overlooked, namely, the difference in ability to learn words This section deals with this problem

In the chapter on Initial Reading Activities, the Fernald tracing technique was described as one means of developing initial reading skills for certain types of children. This technique is a valid and legitimate one to use for children who are diagnosed as "word blind" The technical terms used to describe these cases are *alexia* and *dyslexia*, depending upon the degree of the associative learning disability. When Dr Fernald's tracing technique is used, these children learn to read up to the limits of their mental ability They become skilled and versatile readers They learn to read through this type of approach when all

other approaches have failed. (The child hasn't failed!) The hopeful part of this picture is that these children may be screened out for further study by a competent teacher during the period of initial reading instruction. There is no need for the teacher's failing to provide guidance in terms of the child's needs in this respect.

Fortunately, a very small percentage of the school population may be diagnosed as "word blind." There are, however, other children who may be helped by kinaesthetic techniques. These techniques are less time-consuming and require less supervision than Dr. Fernald's tracing technique. They are not, of course, substitutes for her approach The following is an outline of a kinaesthetic technique.

Step 1 *Identify Unknown Word in Silent Reading* The word is identified during the survey, or silent, reading It is assumed that the child is reading at his instructional level, hence, he does not encounter more than one unknown word in twenty to fifty running words (See chapter on "Discovering Specific Reading Needs")

Step 2 *Motivation* The child is motivated to use this method by the explanation that it is a new and faster way to learn words

Step 3 *Pronouncing the Unknown Word.* The pupil is encouraged to use word-recognition skills learned to date If he is still unsuccessful, the teacher pronounces the word for him The meaning is cleared by rereading this section of the passage

Step 4 *Writing the Word Without Copy.* The pupil studies the word by syllables until he believes he can write it after closing the book If an error is made, the word is erased and the pupil studies the correct spelling in the book again This procedure is repeated until the child can write the word correctly without copy.

A record of these words may be kept in a card file, or in a picture dictionary. If a loose-leaf notebook is set aside for this purpose, a large (8½ X 11 inch) sheet of paper is used Two vertical lines are drawn on the paper to provide three equal columns The first column is used for the first writing of the word, the

second column, for the second writing at the first sitting. The third column is held in reserve. When all the learning conditions are met, the pupil seldom *needs to use the third column.* If, however, the child meets the word in a second sentence setting and does not recognize it, the third column is used. Normally, the child who can profit from the use of this technique *will use the third column* for only about five per cent of the words. If he has very much difficulty remembering them, he may be a candidate for the Fernald tracing technique.

Three-by-five-inch cards may be used for recording the words. The word is written on one side and an illustrative sentence is written on the other. This key sentence gives a clue to the word for future use. The cards are filed in alphabetical order in a small box.

The words may be recorded in a loose-leaf picture dictionary. For this purpose, the page is divided into two vertical columns. In the first column a picture or illustrative sentence is used to give a clue to the meaning. The word is written in the second column. Arranging the words in alphabetical order calls attention to the initial letters.

Step 5 *Reviewing the Meaning of the Word* After the word has been written correctly without copy, attention is directed to its meaning or meanings. The pupil is encouraged to give sentences which illustrate different meanings or uses. For example, the word *ride* may be used as a verb or as a noun, or the word *run* may be used to indicate a *run* in a stocking, *run* home, and so on. An illustrative sentence is selected to write beneath the word or on the back of the word card.

Step 6 *Finding the Word in Another Sentence* To sharpen the child's visual perception of the word, he is encouraged to find it on the same page or on a succeeding page. In well-graded reading materials, "new" words are used, often after they are introduced.

Step 7. *Writing the Word Again Without Copy.* The first writing of the word is studied briefly and covered with a card. It is then written correctly without copy.

Word-Recognition Tests

Appraisal in Reading Situations. Word-recognition skills are developed in reading situations. Likewise, one of the best ways to appraise the child's word-recog-

nition skills is to observe the use he makes of them in reading situations. Specific observations are made during a directed reading activity when the child is reading under close supervision.

Generally speaking, formal tests of word recognition require the child not only to recognize a word but also to identify its general meaning. For this purpose, most authors of tests require the matching of words and pictures or the selection of one word from a number of alternates to complete the meaning of a sentence.

There are occasions when the teacher needs a quick means of checking on the word-recognition skills of a group of pupils. For example, when a new group of pupils is admitted to a room or when an objective check is desired, a teacher-made test is a handy device. These tests may be devised for group or for individual testing

Selection of Words for Tests The words for the test are selected from the basal textbooks. These words are usually given in a vocabulary list at the back of the book. Fifteen to twenty-five words are usually sufficient for a test, depending upon the reading level.

In order to obtain an adequate coverage at a given "reader" level, a *sampling* is taken from the vocabulary list. For example, the typical primer usually contains approximately one hundred different words used for the first time at that level. If a sampling of twenty words is needed, the teacher starts with any one of the first five words and takes every fifth word. If the second word is selected, then the selection is made by checking off the second, seventh, twelfth, seventeenth, and so on until twenty words have been obtained. Briefly, the number of "new" different words is divided by the size of the sampling desired. The quotient indicates the number of words to be counted from one sampled word to another. The sampling makes it possible to find out what per cent of the words the child can recognize

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at sight For all practical purposes, it is as well to take a sampling as it is to actually test the child on every word of the list from which the sampling was taken Furthermore, both teacher and pupil time is saved

An individual test is easily made from the sampling This is done by typing the words in columns The following are sampling tests based on the Betts *Reading Vocabulary Study*

PREPRIMER LEVEL

Stimulus	Response	
	Flash	Untimed
1 the	____	____
2 a	____	____
3 mother	____	____
4 is	____	____
5 I	____	____
6 to	____	____
7 and	____	____
8 said	____	____
9 come	____	____
10 you	____	____
11 in	____	____
12 will	____	____
13 father	____	____
14 little	____	____
15 here	____	____

PRIMER LEVEL

Stimulus	Response	
	Flash	Untimed
1 with	____	____
2 me	____	____
3 for	____	____
4 he	____	____
5 we	____	____
6 my	____	____
7 away	____	____
8 can	____	____
9 like	____	____
10 are	____	____
11 did	____	____
12 no	____	____

Stimulus	Response	
	Flash	Untimed
13 red	——	——
14 they	——	——
15 at	——	——
16 on	——	——
17. one	——	——
18. some	——	——
19. girl	——	——
20. do	——	——

	Flash	Untimed
10 next	——	——
11 be	——	——
12 please	——	——
13 off	——	——
14 night	——	——
15 time	——	——
16 work	——	——
17 thing	——	——
18 when	——	——
19 their	——	——
20. would	——	——

FIRST-READER LEVEL

Stimulus	Response	
	Flash	Untimed
1. old	——	——
2. took	——	——
3 water	——	——
4. way	——	——
5 mary	——	——
6. again	——	——
7. know	——	——
8. over	——	——
9. other	——	——

SECOND-READER LEVEL

Stimulus	Response	
	Flash	Untimed
1 dress	——	——
2 noise	——	——
3 bark	——	——
4 string	——	——
5 through	——	——
6 side	——	——
7 knew	——	——
8 cook	——	——

test words. Provision is made for five words on each line, the test word and four alternates. The test words are recorded first in random order so that the test word is not always in the same position. The alternate words on each line are selected from the remaining words in the vocabulary list. The following is a sample of part of a group test, using the words from the individual test for the primer level. The test word is given in parentheses here to identify it for the teacher.

(I)

1. *school*   (*with*)   *was*   *tall*   *under*
2. *children*   *girl*   *boy*   (*me*)   *friends*
3. (*for*)   *our*   *likes* *doll*   *so*
4. *there*   *that*   (*he*)   *soon*   *talk*
5. *new*   *into*   *get*   *who*   (*we*)

This test is duplicated (omitting the parentheses for the test word). The teacher instructs the pupils: "Put your finger on the first row of words. I will pronounce one of the five words in the row. After I pronounce it, draw a circle around the word you think I pronounced. All ready? *With*." And so on for each row of words.

This form of group test, of course, is easier for the children than the individual test. However, it may be used to screen out those pupils in need of an individual test.

Diagnostic word-recognition tests may be devised for individual or group testing. For example, reversible words (e.g., *saw* and *was*), *th* words (e.g., *the*, *they*), words with vowel digraphs, and the like may be used to analyze errors and to estimate reading levels. The following is a sample test to diagnose difficulties with *th* and *wh* words (based on the Betts *Reading Vocabulary Study*) is given in parentheses for the teacher.

	Stimulus	Flash	Untimed
(PP)	1. the	———	———
(P)	2. they	———	———
	3. this	———	———
	4. then	———	———
	5. thank	———	———
	6. what	———	———
	7. who	———	———
	8. three	———	———
	9. that	———	———
	10. there	———	———
	11. them	———	———
	12. thing	———	———
	13. their	———	———
	14. where	———	———
	15. white	———	———
	16. when	———	———
	17. why	———	———
	18. which	———	———
	19. while	———	———
	20. wheel	———	———
	21. think	———	———
	22. thought	———	———
	23. through	———	———
	24. than	———	———
	25. these	———	———

(II)

Vocabulary Studies

In the not too distant past, children were required to study long "jaw-breaker" words in spelling and in reading. Marked improvement in graded instructional materials has been brought about, in part, by investigators of vocabulary. These vocabulary studies are, in general, of three types: speaking, reading, and writing. Most of these studies are mechanical counts of the spelling forms of words used in the speaking, reading, and writing vocabularies of children and adults. More recently, the trend has been toward the study of the structure of words (i.e., prefixes, suffixes, and roots) and of the uses of words. Investigations of the uses of words are referred to as semantic, or meaning, studies. Teachers should be acquainted with important vocabulary studies used as a basis for curriculum and textbook construction.

At the turn of the twentieth century, an interest was aroused in the scientific study of vocabularies. In 1904, Will Grant Chambers published his classic study of "How Words Get Meanings" (36). This study was aimed at the general problem of "how concepts grow." L. P. Ayres published his significant spelling vocabulary study in 1915 (6).

He found, for example, that one thousand words constitute approximately ninety per cent of the words used in writing. These pioneering studies called attention to the need for studying commonly used words and to the bases of meaning.

Subsequent studies have dealt with the vocabularies of children and adults. In the main, the speaking, reading, and writing vocabulary studies have been aimed at the *frequency* of usage. Some words used frequently by children may be required for their immediate communication needs but they may not have much *permanent* value. To get at this problem, the vocabularies of children have been checked against those used by adults. Adult vocabulary studies have been useful, therefore, in determining the permanent value of words and the words which may be *crucial* in later communication situations.

One of the most valuable references on vocabulary studies for elementary-school teachers was prepared by Dr. J. Conrad Seegers and a committee for the National Conference on Research in English in 1939 (202). This publication is a digest of research on *Vocabulary Problems in the Elementary School*.

Speaking Vocabulary Studies. Probably the most widely quoted study of this type is the following.

A Study of the Vocabulary of Children before Entering the First Grade. Washington, D.C.: The International Kindergarten Union, 1928 (Now distributed by Association for Childhood Education.)

The data for this study were obtained from three sources: kindergarten situations, reaction to pictures, and home. This study has been widely used as a guide for appraising the vocabulary of beginning reading materials.

Two significant studies of the oral language of children have been made by Madora E. Smith.

Smith, Madora E. "An Investigation of the Development of the Sentence and the Ex-

tent of Vocabulary in Young Children," *Studies in Child Welfare*, Vol. 3, No. 5. Iowa City, Iowa: State University of Iowa, 1926.

Smith, Madora E. "A Study of Some Factors Influencing the Development of the Sentence in Pre-school Children," *Journal of Genetic Psychology*, Vol. 46 (1935), pp. 182-212.

There is an urgent need for additional studies of the speaking vocabularies of children. Many studies other than the two mentioned above have been made but they have not been distributed widely.

Reading Vocabulary Studies. Undoubtedly reading vocabulary has topped the list of studies. Some of the most frequently quoted ones include the following:

Berglund, Albert O. *A Fourth Grade Reading Vocabulary.* Winnetka, Illinois: Winnetka Educational Press.

Data based on a study of six basal readers and five supplementary readers.

Cole, Luella. *The Teacher's Handbook of Technical Vocabulary.* Bloomington, Illinois: Public School Publishing Company, 1940.

This is a frequency count of special words used in textbooks.

Durrell, Donald D., and Sullivan, Helen Blair. "Vocabulary Instruction in the Intermediate Grades," *Elementary English Review*, Vol XV, No. 4 (April, 1938), pp. 138-145.

This is based on a count of words in basal readers and social science books for grades four, five, and six.

Gates, Arthur I. *A Reading Vocabulary for the Primary Grades.* New York: Bureau of Publications, Teachers College, Columbia University, 1935.

This is a list of 1811 words selected on four bases: probable interest value, probable utility value, frequency of occurrence in primary literature, and frequency of occurrence in the speaking vocabularies of children. This list was obtained from studies made by Thorndike, Horn, Packer, and Moore.

Hockett, John A. *The Vocabularies and Contents of Elementary School Readers.* Sacramento, California: California State Printing Office, 1938.

Basic vocabulary facts are given on fifty preprimers and "short easy primers, forty-two primers, thirty-seven first readers, twenty-nine second readers, six third readers, and two fourth readers."

Lorge, Irving, and Thorndike, Edward L. *Semantic Count of the English Language.* New York: The Institute of Educational Research, Teachers College, Columbia University, 1938.

This is a count of the frequency of occurrence of each meaning of a word. Studies of this type are of more help to teachers and publishers than counts of the spelling forms of words.

Stone, Clarence R. *Stone's Graded Vocabulary for Primary Reading.* St. Louis, Missouri: Webster Publishing Company, 1941.

This publication is based on a count of words used in twenty readers, from preprimer through the third-grade level.

Thorndike, Edward L. *A Teacher's Word Book of 20,000 Words.* New York: Bureau of Publications, Teachers College, Columbia University, 1931 (Revised 1932).

This is an extension of the 10,000-word list, using the original forty-one different sources and an additional 200 sources. Each word is rated in terms of frequency of occurrence. For example, the word *and* is rated *1-a* to indicate it is one of the five hundred most commonly used words.

Thorndike, Edward L., and Lorge, Irving *The Teacher's Word Book of 30,000 Words.* New York: Bureau of Publications, Teachers College, Columbia University, 1944.

This is an extension of Thorndike's *Teacher's Word Book.* For each of 30,000 different words, information is given on the occurrences per million words, Thorndike rating based on his 1931 count, Lorge rating based on his magazine count, Thorndike rating based on his count of 120 juvenile books, and the Lorge-Thorndike count based on a semantic study.

Writing Vocabulary Studies. A large number of studies have been made of writing vocabularies. Considerable attention has been given to the vocabularies of both children and adults. One type of investigation has appraised actual usage; another type, textbooks. The following

ARITHMETIC SKILLS ARE NEEDED

Lillian A. Wilcox   *Buffalo, N.Y.*

studies have been listed here largely on the basis of their availability and general use.

Betts, Emmett A *Spelling Vocabulary Study.* New York: American Book Company, 1940.

This is a study of the grade placement of words in seventeen series of spellers. The authors of these spellers agreed on the grade placement of only one word. General agreement was found on approximately six per cent of the total vocabulary.

Fitzgerald, James A "Letters Written Outside of School by Children in the Fourth, Fifth, and Sixth Grades. A Study of Vocabulary, Spelling Errors, and Situations," *Studies in Education,* Vol. 9. Iowa City, Iowa: College of Education, State University of Iowa, 1934.

This is a list of 2106 words occurring eight or more times.

Horn, Ernest *A Basic Writing Vocabulary* Iowa City, Iowa College of Education, State University of Iowa, 1926

This is a classic study of the 10,000 words most commonly used in adult writing

Rinsland, Henry D *A Basic Vocabulary of Elementary School Children* New York The Macmillan Company, 1945

This is based on a count of approximately 6,000,000 running words used in children's writing for grades one to eight, inclusive Two types of data are presented on each of the 14,571 words occurring three or more times at a given grade level first, the frequency of occurrence in the sampling, second, an index to the relative frequency of usage, as for example, the first one hundred or second thousand

Smith, James H *The Vocabulary of Children* Bulletin of the State Teachers College, Oshkosh, Wisconsin State Teachers College, Vol XXIX, No 139 (January 1, 1935)

This is a summary of data on words used by the pupils of grades two to eight, inclusive, in one school system Data are given on the frequency of error, and the grade level at which each word was first used.

Combined Word List In the following study, an attempt was made to combine a number of different types of studies.

Buckingham, B R , and Dolch, E W *A Combined Word List* Boston Ginn and Company, 1936

This is a combined word list, based on a free-association study made by the authors and on other important studies of speaking, reading, and writing vocabularies After each word, information is given on its rating by the compilers or by the authors of the studies used in this compilation

Summary Vocabulary studies have reduced useless vocabulary difficulties and have served as a basis for curriculum planning. Furthermore, these studies have led to investigations of meanings and of the readability of material However, these lists have not always been used to the best advantage In some instances, they have been used as a means to regiment instruction This has re-

sulted from an overemphasis on grade placement. In addition, there has been too much emphasis on the word form and not enough on the meanings of a word.

Meaning

Reading is a process of evaluation by means of which the reader obtains mental constructs, or concepts. The extent to which the reader gets the mood, intent, and tone of the author depends upon his ability to reconstruct the experiences behind the symbols. The foundation of meaning is experience. All teachers have the primary responsibility of guiding the child in relating what he is reading to what he has observed, experimented with, and felt. Hence, reading is a process, not a subject, and all teachers must provide systematic guidance in reading Growth in meaning vocabulary is one of the most important instructional jobs

Too often, reading instruction is limited to the activities in a reading class. And too often, these activities are limited to pronunciation skills, location of information, formal exercises in matching synonyms and antonyms, and the like. When reading instruction is terminated at this level, it falls far short of the legitimate goals of education.

BASIC CONSIDERATIONS

Over a long period of years, there has been developed a science of word meanings called semantics. It is as important for the teacher to have some basic understandings of the semantic basis of language as it is to understand its phonetic basis. Some of these basic considerations are described very briefly here:

Symbols of Experience. Words—spoken or written—are symbols of experience. Language is not experience; instead, it is an abstraction of experience Language is a means of symbolizing experience—past, present, and predicted.

Language-Experience Relationships. Meaning exists in the relationship between

language and experience. There is no meaning in a printed word; meaning exists in the nervous system of the writer or reader.

Primary and Secondary Symbols. Spoken words are sometimes called primary symbols because they are more closely related to experience than are printed words, or secondary symbols.

Words and Meanings. Some words have a single meaning; others have multiple meanings. Words with more than one meaning are called polysemantic.

Denotations and Connotations. Words may be used in their literal meanings or in an implied meaning. When the basic meaning of a word is indicated, it is called a denotation. When a meaning is implied by the tone or mood of the author, it is called a connotation. For example, the word *cat* may be used to denote a given four-legged animal or to connote some of the characteristics of a cat. This sentence is used to denote a *cat:* A black cat ran across my path. This sentence is used to illustrate a connotation of *cat:* Mary was kittenish with her boy friends and catty with her lady friends.

Abstractions. Some words may have concrete meanings; others may represent highly abstract ideas. The word *Toby* may refer to a specific cat; the word *cat,* to a special kind of animal; the word *vertebrate,* to animals with a backbone or to anything that is "strongly knit together"; the word *animal,* to any group of living beings capable of spontaneous response; the word *life,* to animals or plants; and so on. The more the meaning is generalized, the higher the level of abstraction. Hence, words are not classified as *either* concrete *or* abstract; instead, their meanings vary all the way from the concrete to the abstract. To insure communication, both the writer and the reader must be aware of the use of different levels of abstraction.

Referential and Emotive Language. Generally speaking, language is used to *inform* or to *affect* another individual. Referential language is used to report experiences; emotive language, to affect feelings. Referential language denotes verifiable experiences; that is, the language is used to represent something in the environment. Emotive language in which the connotations of words are capitalized upon may or may not be used to legtimate social ends. Connotations appeal to our emotions because of their overtones of meaning.

VERBALIZERS

All through the preceding discussion of word recognition, an attempt has been made to show how pronunciation skills may be developed as a part of a broader program of systematic reading instruction. It is entirely possible to develop a group of excellent word pronouncers who cannot *read!* That is, when the mechanical aspects of word recognition are overemphasized, the children are likely to become word announcers Individuals who pronounce words glibly and rhythmically without knowing what they represent are called verbalizers. The words are empty of meaning for them; they do not represent experience. Verbalization is a very common disease in elementary schools.

What are the conditions which foster verbalization? There are several. Some of these will be described at this point. First, pupils may be initiated into reading before they have acquired a sufficient background of information and oral language facility to deal effectively with printed symbols. Second, the pupils are often given initial reading materials which are sterile so far as meaning is concerned. These materials are purchased because they are attractively illustrated and have a limited vocabulary with a prescribed number of repetitions) Third, calendar-dictated learning usually results in pupils being taken through pre-primers, primers, and so on regardless of their achievement. This condition frustrates the child in his attempts to pronounce the words, let alone to get at their meanings. Fourth, in order to live up to

the course of study or some other imaginary requirements, the teacher prescribes heavy doses of word-recognition drills This directs the attention from meaning to the mechanics of the word form Fifth, a strange condition exists in many schools where "reading" is taught in a separate period This tends to divorce language from experience Sixth, many textbooks (e g , geographies) are heavily burdened with mental constructs, or concepts When these are passed over hastily, the child fails to get the meaning. Seventh, instruction is usually confined to one textbook, hence, to one point of view Eighth, high-level abstractions (e g , *capital, labor, democracy*) are used often by both teachers and pupils without realizing they are not communicating with each other These are only some of the conditions which contribute to failures in communication by means of language, or to breakdowns in comprehension

DEVELOPING READING VOCABULARY

In general, there are three ways to enlarge a child's reading vocabulary rich and varied first-hand experience, wide reading, and directed study of words

The child's first experience with meaning comes through direct contact with his environment The value of direct experience probably cannot be overemphasized at any school level For example, terms used in science—e g , *vacuum, humidity,* and *osmosis*—may be learned relatively easily through experimentation Through first-hand experience the child develops concepts, or mental constructs, by sensing the relationship between language and experience

Of course, it is not possible to develop meanings entirely by relating language and direct experience Abstracts of experience may be brought into the classroom through other media These include sound films, silent films, stereographs, slides, film strips, radio programs, pictorial illustrations, graphs, and finally, reading

The second means of enlarging vocabulary is through extensive reading Wide reading is a vicarious, or secondhand, avenue to the enrichment of experience. Wide reading experiences operate to promote vocabulary growth in several ways. First, extensive reading permits the child to explore many areas of experience, thus developing varied interests Second, while exploring many areas of interest, the child comes into contact with many different words. A great many of these words may have evolved from common roots, prefixes, and suffixes. Third, wisely guided extensive reading promotes the use of the dictionary, glossary, encyclopedia, and other reference materials needed to clarify meanings While wide reading contributes to vocabulary development in a number of ways, it should not be done to the exclusion of intensive reading.

A third means of developing a reading vocabulary is through the directed study of words and their relationship to experience. Since the chief difficulties are with pronunciation, connotations, idioms, and compound words, special attention should be given to these matters.

The development of an extensive vocabulary for reading purposes involves more than an acquaintance with the general vocabulary of basal readers This is a task beyond the province of the teacher of language arts In arithmetic, the child must know what is back of such terms as *column, product, quotient, denominator,* and *cubic inch,* in science, *gas, mineral, bacteria,* and *cell;* in hygiene, *calorie, starch, immunity,* and *infection;* in social science, *irrigation, production, hemisphere,* and *culture,* in English, *adverb, participal phrase, suffix, paragraph, sequel,* and *elegy;* and so on While it is true that words such as *a, and, the, that,* and *for* are used in all types of writing, nevertheless, each area of human endeavor has an extensive vocabulary peculiar unto itself The words one uses depend upon what is being talked about Hence, vocabulary development is not only a perennial prob-

lem but also a problem in all situations where reading is involved.

Vocabulary development involves far more than studying the meanings of words, because the meaning of a given word is influenced by other words in the context. In short, an analysis of the word elements—e.g., prefixes, suffixes, and roots—will not always reveal the use of a word in a given sentence setting. It is, therefore, necessary to analyze the sentence, paragraph, or selection and to evaluate the meaning in terms of previous experience in order to arrive at the meaning. This is called semantic analysis.

The following description of selected procedures suggests types of approaches to the problem of vocabulary development. The specific use of a word, its general nature, and the achievement level of the pupils must be considered in clarifying word meanings. In short, the method is varied to meet the needs of the situation.

1. *First-hand Experiences.* There is no adequate substitute for first-hand experience in developing reading vocabulary. Actually performing an experiment or observing a process and discussing the problem is a first-class means of developing mental constructs, or concepts.

2. *Discussion.* This is a legitimate means of teaching the meanings of words. The discussion should call attention to the use of the word in a specific setting and to the level of abstraction. When a word is brought up in class, the teacher and pupils co-operatively use the resources at hand to ascertain its meaning. This may be done by referring to a dictionary, encyclopedia, or some other reference. Then again, a demonstration or the recalling of past experience may be satisfactory. To avoid verbalization, no word brought up in class should be treated lightly.

3. *Using Visual Aids.* Models, pictures, diagrams, blackboard sketches, and the like should be employed wherever possible to clarify meanings.

4. *Considering the Sentence Setting.* At all

times, it is necessary to consider the verbal setting of a word to arrive at a specific meaning. By means of carefully considered questions, the teacher may call attention to the meaning of the other words in a sentence. Idiomatic expressions and figures of speech are brought out in this way.

5. *Using Dictionaries and Glossaries.* As pointed out previously in this chapter, the dictionary gives clues to meaning but the reader must evaluate the definitions and illustrations in terms of the sentence or paragraph setting.

6. *Studying Roots and Suffixes.* This point has been made in a previous section of this chapter. A knowledge of word elements may be used to identify the specific use of a word.

7. *Promoting Semantic Sensitivity.* It is a relatively easy matter to promote an interest in the varied uses of words. Children may be motivated to keep a vocabulary notebook in which are recorded interesting idiomatic phrases, new uses of old words, metaphors, similes, words from other languages, compounds, abstractions, and the like. Through discussion, the pupils may be made sensitive to the use of words to inform and to arouse emotions.

8. *Recognizing Related Words.* The teacher gives groupings of words in which one word is not related in meaning to the other words. Examples:

Cross out the word which does not belong on each line

| soldier | gun | farmer | uniform |
| kind | friendly | cruel | agreeable |

Underline the word in each group that has about the same meaning as the numbered word.

1. fertilize	2. separate
capture	divide
enrich	unite
filter	combine

9. *Adding a Related Word.* The teacher gives groupings of words which are related in meaning. The pupils are instructed to add another word related in

a similar way. Example: *offend, insult, (abuse).*

10 *Matching Words of Similar Meanings.*
The children are given two groups of words which are to be matched Example:

winner	(champion)
contest	(tournament)
make	(construct)
craft	(boat)

11 *Selecting Correct Words* The pupils are given sentences with missing words The child selects one of two words to make the sentence correct. Example

Paul Revere made ____ on sheets of copper
(*drawings, engravings*)

The people ____ the laws made by the king
(*opposed, respected*)

12. *Using Words in Different Ways* The pupils are encouraged to bring to class words of more than one meaning The various meanings are discussed and illustrated Examples

| draw—cartoon |
| draw—sled |
| draw—ending of a contest |
| cross—street |
| cross—mood |
| cross—eliminate an error |
| cross—on church |

Summary

This chapter is a discussion of two aspects of vocabulary development pronunciation and meaning The major sections of this chapter deal with the vocabulary burden of readers, the development of a sight vocabulary, phonetic analysis, structural analysis, the use of glossaries and dictionaries, the appraisal of word-recognition skills, kinaesthetic techniques, and meaning, or the semantic basis of language Essential points are summarized in the following statements

I. The trend is toward the postponement of reading instruction by reducing the vocabulary burden in the first grade.

II. Clues to the identification of a new reading word include context, pictures, language rhythm, configuration and striking details, phonetic analysis, structural analysis, and dictionary usage.

III. Guidance in word recognition should contribute to independence and versatility.

IV. The chief instructional jobs are the development of visual analysis skills and the promotion of semantic sensitivity.

V In planning the word-recognition program, the teacher should consider these factors: goals of instruction, pupil needs, variations in levels of achievement, pupil attitudes, the interrelatedness of the language arts, the systematic character of efficient learning, the role of purpose, value of practicing desirable behavior, and the role of experience in learning.

VI During initial reading instruction, the child is taught to use these word-recognition techniques: context clues, picture clues, language-rhythm clues, and configuration clues.

VII. During the initial period of reading instruction, the child is taught to examine the sentence setting for an unknown word and to evaluate the possible meaning in terms of previous experience. At succeeding levels of instruction, he is taught additional uses of context clues

VIII. The beginner is taught legitimate uses of picture clues to word recognition by two means: interpretation of the illustrated text and the illustration of experience records

IX. The beginner is taught the use of three types of configuration clues: word length, word height, and vertical characteristics of letters

X The vocabulary of the reading materials dictates *when* specific word-recognition skills are introduced Following the development of a sight vocabulary, the skills are introduced in this sequence: phonetic analysis, structural analysis, glossary, and dictionary usage.

XI. Many children can profit from systematic guidance in phonetic analysis as an aid to pronunciation.

A. Instruction in phonics is designed to promote independence in reading, auditory discrimination, and good speech habits.

B. A pupil is ready for systematic instruction in phonics when he has command over a substantial stock of sight words and when he has learned to read purposefully.

C. In developing phonetic analysis skills, these principles and assumptions should be recognized:

1. Phonics is only one aid to pronunciation.

2. The whole word approach should be used.

3. True sound values should be emphasized.

4. Only those phonetic elements which occur frequently or are crucial should be taught.

5. Emphasis should be placed on left-to-right word attack.

6. Word-recognition needs are identified during the survey reading.

7. Rules should be used sparingly.

8. Individual differences in levels of achievement and in aptitude for word learning must be recognized.

9. Independence and versatility in word recognition rank high among the goals of instruction.

10. The sentence or paragraph setting of the word should be examined as a means of evaluating the conclusions reached from phonetic analysis.

D. The teacher should be familiar with terminology, the difference between sounds and letters, classification of speech sound, the International Phonetic Alphabet, consonant and vowel combinations, sounds represented by letters and letter combinations, silent letters, principles of phonics, and the uses and limitations of phonics as a clue to word recognition.

E. Phonetic analysis skills may be developed in connection with a directed reading activity where basal readers are used or where an experience approach is used.

XII. In reading and other language activities, the child is given systematic guidance in the analysis of word structure.

A. New words are added to the English language in four ways: derivation, compounding, borrowing from other languages, and mere invention, or coinage.

B. Three aspects of structural analysis are given consideration: syllabication and accent; inflectional forms, or word variants; derivatives, including roots, prefixes, and suffixes.

XIII. The dictionary is introduced *after* the child has achieved third-reader-level ability.

A The chief goal of this aspect of language instruction is independence in the use of the dictionary in reading, speaking, and writing situations. Specific goals include the development of desirable attitudes toward the uses of the dictionary, skill in locating dictionary information, identification of correct spellings, ability to use pronunciation aids, and ability to evaluate dictionary definitions and illustrations.

B. There are two general types of dictionaries: abridged and unabridged.

C. In planning an instructional program, these factors must be considered: pupil readiness, differences between dictionaries, limitations of dictionary information, interpretation rather than use of diacritical marks.

D. In learning to locate dictionary information, the pupils should learn alphabetical order, to estimate in which part of the book information may be found, and to use guide words.

E. In learning to use dictionary aids to pronunciation, the pupils should learn to interpret syllabicated vocabulary entries, respellings, accent marks, diacritical marks, key words, preferred pronunciation, and colloquial pronunciation.

F. Pupils should be taught to use these dictionary aids to spelling: syllabicated vocabulary entries, capitalized entries, compounds, and preferred spellings. The syllabicated entries are used to in-

dicate when to break a word at the end of a line

G Pupils should be taught to use these dictionary aids to meaning· definitions, synonyms, verbal illustrations, pictorial aids, cross references, idiomatic expressions, and information on prefixes and suffixes In this connection, they should learn how to interpret abbreviations

H Needs which can be satisfied through the use of the dictionary are identified during the survey reading and subsequent activities

1 The pupils are guided in their discovery of the organization of the dictionary and of the types of information given.

2. Systematic guidance is given in the use of the dictionary for identifying correct pronunciation and spelling and for evaluating meanings

XIV. Some pupils may require kinesthetic associations to re-enforce visual and auditory associations with a word.

XV. Word-recognition skills may be appraised by objective tests

A. Most standardized reading tests contain sections for appraising these skills

B Informal inventories may be made by the teacher. These may be designed as individual or group tests. Each of these types may be used for survey or for diagnostic purposes.

XVI Vocabulary studies have contributed to the improvement of reading instruction in three ways: First, studies of speaking vocabularies have been used as a basis for the development of initial reading materials Second, studies of reading, writing, and speaking vocabularies have served as one basis for grading the difficulty of reading material

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FINDING THE ANSWER

Clark M Frazier, Bernice Bryan   Cheney, Wash.

Third, studies of the meaning of words, prefixes, and suffixes have taken some of the guesswork out of teaching.

XVII. One of the chief instructional jobs in reading is teaching the child to reconstruct the experience behind printed symbols.

A. The child must acquire the basic notion that printed symbols represent, or are abstractions of, experience.

B. The child must acquire an awareness of shifts in the meaning of a word brought about by the other words in the sentence, paragraph, or selection.

C The child must be aware of *when* language is used to inform and *when* it is used to influence feelings

D. Over a period of time, the child must become aware of the use of different levels of abstractions

E. In general, a reading vocabulary is developed from first-hand experience, wide reading, and the directed study of words

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The adaptation of instruction to individual differences remains among the half-dozen most difficult and challenging tasks confronting American teachers

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Preview

Differentiated instruction is a way of living in the classroom so that the broader objectives of education are achieved A carefully planned program of differentiated instruction for children of all ages does not lead in the direction of highly individualized instruction; instead, the ultimate goal is the development of skills, abilities, attitudes, and information in social situations which capitalize on individual and group contributions. All learning is an individual matter, but teaching is essentially individual guidance in group situations. Through properly planned instruction, individual capacities, achievements, interests, motives, and needs are recognized and equal learning opportunities in the classroom are provided. In a classroom where the basic principles of learning are observed, learning is motivated, progress is facilitated, and the individual is socialized by using language skills to solve personal and group problems. Systematic guidance is possible only when it is differentiated in terms of the *individuals* who are supposed to profit from that guidance. Differentiated instruction, then, places a premium on individual differences, gives every child an equal opportunity to learn, promotes personality development and social adjustment, and fosters the development of desirable attitudes by giving the child practice on *when* as well as *how* to use language skills.

Professional Competency Competence in the teaching profession is not achieved over night or in a four-year college curriculum. It is said often that teachers are born and not made. Undoubtedly, there is a grain or two of truth in this statement, but, fundamentally, it is very superficial. Teaching does require a good nervous system The teacher must be a keen student of books and children, and she must be able to maintain emotional poise. Given these two prerequisites, the teacher, then, must dedicate her life to professional improvement. Education is a jealous mistress; she demands undivided attention Basic to all teaching techniques and guidance procedures is an understanding of child and educational psychology. The teacher is not born with this learning which dictates her attitudes toward children and her procedures in dealing with their problems. Professional competency is a sum total of personality, social adjustment, broad scholarship, and teaching technique.

For discussion purposes, professional competence in language instruction can be described in terms of eleven levels These eleven levels are established arbitrarily Zero level of professional competence is the lowest level of traditional instruction. Level ten, which should be reappraised annually, is the highest level

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ment levels as well as variations in learning rates.

LEVEL FOUR

Three or four groups; different textbooks of same series; *one group working above grade level*; one at grade level and one or two below grade level; permanent grouping.

Chief characteristic: beginning attempts to differentiate instruction for *all* pupils—fast, average, and slow learners. Also recognition of the fact that children who are at or above grade level may be retarded.

LEVEL FIVE

Three or four groups; different textbooks of same series; groups working above, at, and below grade level; permanent grouping for fast and average groups and *flexible grouping for slow learners*.

Chief characteristic: beginning attempts to regroup as varying rates of progress dictate.

LEVEL SIX

Three to five groups in reading only, different textbooks of same series; groups working above, at, and below grade level; *flexible grouping for all pupils*.

Chief characteristic: flexible grouping

LEVEL SEVEN

Three to five groups in reading, *spelling*, and *elementary school English*; all groups working above, at, and below grade level; flexible grouping; *development of large units of experience growing out of basal readers, with some recognition of the personal problems and questions of the pupils*

Chief characteristic: beginning recognition of the interrelation of the language arts (i.e., reading, writing, and spelling); of the role of purpose in learning; and of reading as a process rather than as a subject.

LEVEL EIGHT

Flexible grouping in all major subjects; basal textbooks still dictating learning experiences; *expansion of units beyond*

the grouping of stories in basal readers and into social studies and, perhaps, science; increasing awareness of the limitations of grouping as a means of differentiating instruction; *recognition of need for developing language skills in social situations* (i.e., recognition of speech, reading, and writing as aids to learning).

Chief characteristic: beginning attempts to depart from grouping as a means of differentiating instruction and to develop language skills in social situations

LEVEL NINE

Some use of basal textbooks in the major subjects to provide materials to meet the specific needs of individuals; *teacher determination of areas of experience to be developed in co-operation with the pupils*; increasing emphasis on pupil questions and problems; class, group, and individual planning and evaluation; group and independent research and recreational activities; balanced program of informational and recreational reading activities, recognition of the need to emphasize the prevention rather than the correction of reading difficulties.

Chief characteristic: beginning attempts at an all-out unit approach

LEVEL TEN

Continuation of Level IX; attractive library table with books for browsing; variety of trade books supplementary to curriculum experiences; encouragement of home library and recreational reading; basal textbooks in all school subjects used primarily as references; basal workbooks used to meet specific needs of pupils; handbooks of style used as references; curriculum experiences organized in large areas.

Chief characteristic: unified language-experience approach.

Factors in Differentiation

In developing a program of differentiated instruction on any "grade level,"

four factors are considered, the professional competence of the teacher; levels of pupil achievement, pupil needs, and pupil aptitudes All of these, of course, are related to such factors as goals of instruction, promotion policies, home reports, class size, type of supervision, type of community, and the like

Professional Competence Recently Joe E. Brown, the comedian, published a book entitled *Your Kids and Mine* (Doubleday, Doran and Company, Inc., 1944) In this book, he makes this sage comment "I used to tell my boys that opportunity begins inside a man When you become qualified enough inside yourself for any job, that job knocks on your door "

The teaching profession, like all other professions, embraces a large number of *different* individuals with different qualifications Teachers differ in interests, aptitude, professional preparation, administrative ability, and in many other respects A modern school program is developed in terms of pupil needs, but it is administered in terms of individual teachers. In a child-centered school, the administration is teacher-centered Children in the classroom vary widely in their achievements Likewise, teachers vary widely in their levels of professional achievement It is a wise principal or supervisor who recognizes different levels of professional competence among the teachers on his staff.

Every teacher cannot hope to achieve tenth-level professional competence in *every* classroom situation *The chief* problems to be considered are the children, the teacher, the administration, and the parents

1. *The Teacher* In actual practice, the teacher is the key to what happens in the classroom Her cultural background, her outlook on life, her reason for being a teacher, her professional preparation, her emotional stability, her personality, and her scholarship—all these and kindred factors contribute to success in achieving a high level of professional efficiency. If

the teacher does not have what it takes, no administrative pressure or device can bring about lasting or worth-while changes in her classroom. By going off on half-baked tangents, the teacher can wreck class morale and bring down upon herself the wrath of the administration and the parents. Through unguarded and uncontrolled enthusiasm, she can suffer the tortures heaped upon her by the contempt of her fellow teachers By going beyond the bounds of what the public wants in an educational program, the possibilities of modernizing a school situation may be lost for the moment. The teacher must represent all that is good and holy. Before she can improve what is happening to her pupils, the *community must want improvement.* The successful teacher must be an able leader as well as an experienced classroom administrator.

2. *The Children.* The level at which instruction may be differentiated may depend somewhat upon the previous experiences of the children. If they have been required to sit in their seats for long periods of time and to recite to the teacher in a humdrum fashion, they will not know how to act in a democratic classroom The teacher's first job will be to help them learn how to live together. This will require some time.

3 *The Administration* The people are represented in a school system through the board of education and *the officers* of the parent-teacher association Except in small school systems, the board of education establishes policies, and delegates the responsibility for administering them to a superintendent or principal This administrative officer usually carries a heavy burden of duties, only one of which has to do with instructional leadership In modern schools, this officer has devised some means of stimulating the professional growth of teachers. The schools become laboratories in which the teachers are encouraged to appraise new materials and procedures In this type of situation, the exchanging of ideas pro-

motes interest in the school and teacher growth.

Not all school systems are so sweet and rosy. In some places, the teachers do everything but punch a time clock. At a given period every day, all elementary-school teachers must have a reading, spelling, or arithmetic class. And every child in the class must be reading in the same book regardless of his reading achievement. The following administrative bulletin is a sample from a regimented school:

I have objected to teachers using the work of the previous grade with their pupils When a pupil has been promoted, he is entitled to do the work of the grade to which he has come. There are just 180 days in a school year. If a slow pupil reviews the previous grade, how can he finish the regular work? He becomes progressively retarded.

Well, what can a teacher do in the above situation? She can hold school and hear classes; she can give the administrative officer the facts regarding differences in pupil achievement, or she can get out. Many administrative officers are reformed high-school principals. Hence, they have had few opportunities to understand elementary-school problems Since administrative officers usually are sincere, the best advice is for the teacher to go over her problems with him. The co-operative solving of problems works both ways: the teacher learns from the principal; the principal, from the teacher.

The point of this discussion is this: the teacher and the administrative officer must work together. Schools are supported and operated for children, not for teachers. How far a teacher may go in revising her instructional procedures depends to no small degree upon co-operating with the administration.

4. *The Parents.* In a democracy, the people do get the kind of schools they want. If, for example, they don't want their children to be taught manuscript writing, they have very effective ways of letting the school authorities know it! Fortunately, parents with whom the writer has worked readily grasp the reasons for differentiating instruction. After they understand that their child is getting more out of school by working at his own level, they usually want to know why all schools don't cater to the needs of children.

Parents, like all people, react to labels. If they have a community building with the label *School* chiseled above the keystone, they believe they have a school. The teacher is in a strategic position to educate parents regarding the meanings of *School.* School No. 1 is not the same as School No 2, and so on. In School No. 1, the children are frustrated daily by regimented instruction. In School No. 2, attention is given to individual differences, but the program is limited largely to reading, writing, and arithmetic. In School No. 3, attention is given to personality development as well as the so-called three R's. Hence, the teacher has the responsibility of leading the parents to want better schools.

How far a teacher can go in her efforts to differentiate instruction will depend to a degree upon the attitudes of the parents These attitudes are molded, in part, by information obtained from the teacher.

Levels of Pupil Achievement. Instruction is differentiated in order to provide equal opportunities to achieve satisfactorily in a democratic society. The first basic consideration in achieving this end is the professional competence of the teacher. An incompetent teacher can only assign and hear lessons. Other teachers vary widely in their levels of professional achievement.

A second basic consideration is the levels of pupil achievement in a class. In a carefully considered program of instruction, differences in achievement are recognized not only in reading but also in other areas. This means that appropriate materials are obtained so that instruction may be differentiated at all stages in terms of the pupils' levels of achievement.

Differentiated instruction is based on the sound idea that the teaching should begin where the learner is. Hence, the first step in teaching is the estimation of individual achievements. Learning is an individual matter—even in group situations.

Pupil Needs The first basic consideration is the professional competence of the teacher, the second, levels of pupil achievement. A third basic consideration is pupil needs. To find each pupil's level of achievement and to merely assign lessons from textbooks at these levels does not achieve the goals of instruction. The teacher must provide guidance to meet pupil needs at his level.

Eight or ten pupils in a class may be at approximately the same instructional level so far as *reading* is concerned However, their needs may vary widely. One may require help in word recognition, another, on meanings; another, on location of information; another, on critical reading, and so on

Pupil needs vary in another sense; namely, interests. One or two children may be interested in running down biographical data, another, in the principles of a machine or an operation, another, in customs; and so on. Hence, needs may vary with interests.

General mental ability may be a factor influencing needs. A child with low intelligence *will not go as far*—or, for that matter, even take the same route—as a child of average or superior intelligence. For example, a child with very low intelligence may never learn to read a story but his future occupation may require that he learn to read recipes, store bills, street signs, and the like. Without getting down to fine points, the *teacher must consider the child's general mental ability* when planning the instructional program

Pupil Aptitudes Professional competence dictates, in part, the adequacy of a differentiated program of instruction. Teaching procedures and instructional materials are used in terms of the level of achievement, specific needs at the achievement level, and pupil aptitudes.

The child *who is color blind is not* likely to be successful in most art activities. He is also likely to be handicapped in his use of a microscope or in any activity requiring color discrimination. The pupil with a hearing defect is handicapped in music activities. When a pupil is retarded in motor development, he is likely to be handicapped in rhythm and other physical education activities. These differences are noted and guidance is provided accordingly.

Children differ considerably in aptitude for language learning. Some children learn to read by visual, or nonoral methods. Many children learn to read by the traditional visual-auditory methods. Some children simply cannot remember words when taught by either of these two methods. They require a *visual-auditory-kinaesthetic or a tracing* method. (See chapters on Initial Reading Experiences and Vocabulary Development) Therefore, it is necessary to differentiate instruction in terms of pupil aptitudes.

Levels of Professional Competence

LEVEL ZERO REGIMENTATION

This level is called the amoeba level because it represents the lowest form of human life in the classroom. Unfortunately it occurs on all "grade levels" The teacher is concerned primarily with assigning lessons and hearing recitations Classroom activities are characterized by the highest possible type of regimentation. The motto of the teacher at this level is: Every child in the same grade with the same textbook.

Recognition of Differences At this level, all the pupils in a given grade are assumed to be alike. Likenesses rather than differences are emphasized In fact, teachers at this level sometimes remark, "I treat every child just alike!"

Because the teacher operating at this level assumes that all children are alike, it is not essential to appraise capacities, aptitudes, achievements, attitudes, or needs. Such information would not cause her to modify the lesson plans. All learning is calendar-dictated; at a given grading period the *teacher* must have covered a certain fraction of each basal textbook. If standardized or informal tests are administered, they are given at the end of the school term for post mortem purposes and filed where no child can see them! The pupil *either* passes *or* he doesn't pass. Usually, there is no gray, everything is *either* black *or* white. Sometimes, the pupils are passed "on condition." All this new-fangled stuff about tests, differences, interests, and needs is tommyrot!

Professional Preparation of the Teacher. Since the teacher is concerned primarily with "teaching" subjects rather than children at this level, very little, if any, professional preparation is required

Concept of the Curriculum. The curriculum is made up of courses of study in the "fundamental" subjects. It may have been developed by a group of experts and filed in the office or in the teacher's cabinet. Hence, the textbook authors dictate each course of study.

Concept of Reading. At this level, the teacher assumes that reading is a subject rather than a process. The subject matter of "reading" is believed to be contained in a basal reader. All reading instruction is given during one or two scheduled "reading lessons" each day; the rest of the day is given to other *subjects*, and the pupils struggle through the language problems encountered in arithmetic, geography, history, science, and health. Reading is put in a little watertight compartment all by itself and there must be no slopping over.

The teacher at this level has a very narrow view of the goals of reading instruction Emphasis is likely to be on the mechanics of reading. Some attention may be given to location of information by using the table of contents in the basal textbook. Very little attention can be given to selection, evaluation, and the

MAKING THEIR OWN PREPRIMERS

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broader aspects of comprehension because so many of the children are bogged down with word-recognition hazards So the teacher is forced to drill, drill, drill, and drill on the mechanics of reading, and reading becomes one of the most disliked subjects in the curriculum

Relationship of Language Arts Since reading is assumed to be a separate subject in the curriculum, spelling, handwriting, and elementary-school English also are taught as separate subjects Speech receives little or no attention and, if it does, the children are to face their teacher and contemporaries with "fear and trembling" in a stilted oral language period

Spelling may or may not be taught in first grade to all pupils, depending upon the available list of words in the course of study or in the basal textbook Regardless of whether the pupils can pronounce all the words or use them in oral language activities, all children in all grades must study the same words in the same basal speller The use of reading-achievement data as one criterion for spelling readiness has never occurred to the teacher Furthermore, all spelling instruction is likely to be relegated to the spelling period and *no systematic atten-tion* is likely to be given to spelling needs in everyday writing situations The fact that many of the children cannot spell the words studied in a spelling lesson after one month has elapsed does not concern the teacher much because these pupils are "dumb" or are "poor spellers" A child is born as a "good speller" or a "bad speller" And so spelling instruction deteriorates to another drill subject

Handwriting is taught as a separate subject Manuscript writing may or may *not be taught in the primary grades* Eventually all children spend one period each day in "up and over" drills. If the teacher is a persistent soul, she may insist on the up and over movement in other writing activities Usually, however, handwriting drills are given during one scheduled period each day[1]

Elementary-school English in this scheme of things is taught as a subject unrelated to achievement in speech, reading, handwriting, or spelling. Each day, during a scheduled period, the pupils are drilled on one language item such as the correct use of *was* and *were*, the use of an apostrophe in an isolated list of words, a part of speech, or what not. If there is a list of spelling words in the basal language textbook or drill book (and there usually is!), the pupils get another dose of spelling when they come to that page.

In summary, the language arts are taught as separate and unrelated fragments By the time the teacher has worn out herself and the pupils on drills in reading, handwriting, spelling, and elementary-school English, there is neither time nor energy left to learn when and how to use these language skills in everyday social situations Parents then ask the question, "Why can't our children read, write, or spell?" Uninformed parents may propose more of the same thing Unless the teacher has a more reasonable program to suggest, she is, in plain language, stuck with her follies.

Teacher Goals. The teacher's chief goal is to get all the pupils ready for the next grade. She believes that no child should be promoted to her grade unless he has "covered" the basic textbooks in the preceding grade. Because she has a blind spot for individual variations in learning rates, she does not realize that she and a few of her best pupils are the only ones to "cover" the basic textbooks

Reading Lessons. At this low level of professional (in)competency, reading instruction in all "grades" is reduced to its lowest terms There is no need for the teacher to ascertain the *independent* reading level of each child, because most, if not all, of the books in the classroom carry the same grade designations and, anyway, there isn't time for independent research or recreational reading activities. There is no need for the teacher to determine the instructional level of each

pupil because the teacher is a "grade" specialist; that is, she is employed to teach only one grade and the pupils must be fitted to those requirements of that grade. Furthermore, "I teach grade such and such. Why should I bother with material another teacher should have taught!" After all, doesn't the course of study call for such and such in grade so and so? The teacher must live up to the prescribed regulations.

In this type of classroom, it is unlikely that the teacher understands the basic principles of a directed reading activity in which basal textbooks are used. The children are told to put their arithmetic books away and to get ready for their reading lesson. (Just as though the arithmetic activities did not involve reading[1]) The typical procedure is to tell the children to open their books to page so and so. As soon as each child has found the page, someone is called on to read aloud the first paragraph. Turns are then taken for reading aloud *to the teacher* at the request, "Rise, please, and read." Teachers operating at this level of inefficiency have devised ingenious variations of this procedure. Some teachers precede the reading lesson with blackboard drill on vocabulary. Others may have class drill on phonograms and words with flash cards Yes, there are many ways to violate what is known about the principles basic to a directed reading activity.

Extensive Reading. There is very little time for extensive reading to verify opinions, to get different points of view, or to enrich the child's leisure time outside school. Or, the teacher may require so many book reports each year. After all, the course of study calls for the reading of certain books at each grade level! They are prescribed.

Concept of Retardation. A child who has difficulty with the work in the grade to which he has been assigned is usually "dumb" or "he doesn't try." There isn't time to get at the causes of his trouble. If retardation is given any consideration,

the teacher entertains the idea that, regardless of mental capacity, any child not up to grade level is retarded.

Home Reports In highly regimented schools, home reports are issued every four to six weeks. The teacher spends a disproportionate share of her time sweating over marks. To make matters worse, most home reports in regimented schools are quite meaningless. As one parent expressed it to the writer, "Well, then, when is an *A* an *A*?" The pupil's achievement is determined not in terms of his capacity or social achievement levels but in terms of what his classmates were able to accomplish Hence, the teacher falsely justifies her giving out marks in terms of figures or letters Meaningless and regimented home reports are one sure way to create competition among parents and to destroy the mutually harmonious relationships that should exist between the school and the home

In Summary. Examples of Level Zero are not difficult to obtain It should be clear that isolated drills do not produce efficient use of skills In this type of situation, the emphasis is on subject matter rather than individual development, on memorization and resulting verbalization rather than depth of experience, on passive reception rather than active problem solving, on conning textbooks and reciting to the teacher rather than proposing and solving problems, on adjusting the child to a fixed curriculum rather than adapting the curriculum to the child's needs, on grade placement of subject matter rather than systematic instruction in terms of the individual, and on correction of learning difficulties rather than prevention. The outcomes of this type of teaching are pupil failures, over-agedness, warped personalities, dislike for reading, ineffective study habits, verbalism (i.e., the use of empty words), and inefficiency in the use of language. As a result, the teacher becomes a harsh and unrelenting drillmaster rather than a friendly guide and counselor.

LEVEL ONE: FIRST STEPS IN GROUPING

The teacher has achieved the first level of professional competence when she recognizes some differences in achievement levels and *begins to do something about the situation* Very little professional preparation is required Each of the language arts is taught as a separate subject. Readiness factors in learning receive little recognition. Textbook authors dictate each course of study because regimented is the made of basal books Mastery of subject matter assigned to each grade level is the chief goal of instruction. A substantial percentage of the class is frustrated by the daily assignments Pupils are motivated largely by fear of failure. A small, but significant, beginning is made in the direction of differentiation

LEVEL TWO RECOGNITION OF VARIED LEARNING RATES

This level of professional competence has been achieved when the teacher begins to recognize differences in rates of learning Grouping is the chief means of differentiation, but this administrative device is used only in reading classes The pupils are still regimented for spelling, handwriting, English, arithmetic, and so on Very little, if any, attention is given to differences in achievement at this level; the teacher is a "grade" specialist, recognizing some differences in rates of learning

LEVEL THREE: RECOGNITION OF VARIED ACHIEVEMENT LEVELS

At this level, the teacher begins to provide for the varied achievement of pupils in a reading class, especially for those below grade level Reading groups are formed for those pupils below as well as for those at grade level However, the teacher is still motivated by the notion that all pupils may be brought up to grade level Different textbooks of the same series of basal readers are used, but the pupils are regimented for all other "subjects." In general, the amount of

teacher and pupil frustration is somewhat reduced. Reading, writing, and arithmetic remain the fundamental subjects. At this point, the teacher begins to have problems with the traditional report card on which pupils are rated in terms of their classmates' achievement.

LEVEL FOUR: RECOGNITION OF SUPERIOR ABILITY

Up to this point, the teacher has assumed that all children below grade level were retarded At this level of professional competence, the teacher learns that not all children below grade level are retarded and that many children achieving at or above their assigned grade level are retarded. There has been a gradual awakening to differences in capacity as well as to differences in achievement levels A sincere effort is made in reading classes to provide equal learning opportunities but this practice is not carried over into the other "subjects."

LEVEL FIVE RECOGNITION OF VARYING RATES OF PROGRESS

At this level, the teacher begins to give up hope that all children can be brought up to grade level in reading. There is beginning to take shape the idea that something ought to be done about individual differences in the other school "subjects" However, differentiation is still achieved by grouping for the use of basal readers, but the slow group in reading is found to embrace the "haves" and the "have nots"

During the reading-readiness period, the teacher makes some use of language-type records For initial reading activities, the teacher begins to feel her way with reading-type records (See chapter on Initial Reading Experiences) In general, there is less tendency to prescribe poems to be memorized by all pupils in a given class

This emphasis on systematic sequences of development rather than on the grade placement of subject matter makes it possible for the teacher to observe the

APPLYING INFORMATION

East Orange, N J

C De Witt Boney

basic principles of a directed reading activity. (See chapter on Directed Reading Activities.) Some attention may be given to extensive reading and the desirability of estimating independent reading levels. (See chapter on Discovering Specific Reading Needs.) A beginning is usually made in this delegation of responsibilities to the pupils for the management of the library center.

At this point the teacher gets into deeper water so far as the traditional report card system is concerned. When children are working at different levels in reading groups, a problem arises regarding a satisfactory means of home reporting. Perhaps an "S" (satisfactory) and "U" (unsatisfactory) code is used, quite often after conferring with those who are to receive the reports.

LEVEL SIX: RECOGNITION OF SPECIFIC READING NEEDS

The teacher has achieved this level of professional competence when specific needs as well as reading levels are recognized. Differences in capacities and needs are recognized by *flexible* grouping; that is, children are shifted from one group to another as their needs dictate. However, the teacher is beginning to realize that differentiation cannot be achieved entirely by means of grouping in reading. Two problems arise: how to improve the program of differentiation in reading and how to differentiate in related "subjects."

LEVEL SEVEN: UNIFIED LANGUAGE ARTS APPROACH

At this level, the teacher begins to see the interrelationships between the language arts. Language readiness begins to take on meaning: oral language facility as a factor in reading readiness; reading ability, in writing readiness. Spelling is usually taught as a separate subject. However, the pupils are grouped for instruction in reading, spelling, and elementary-school English. Informal tests

are used to appraise spelling readiness, spelling levels, independent reading levels, instructional levels, and probable capacity levels. Systematic sequences in language receive major consideration. Larger instructional units are based on the content of the basal-reader units. More attention is given to the initiation of a unit by directed pupil discussion of "what we know" and "what we want to know." (See chapter on Developing Basic Reading Abilities)

LEVEL EIGHT: RECOGNITION OF THE SOCIAL BASIS OF LANGUAGE

At this level, the teacher views reading as a process of evaluation rather than as a subject; as a social tool rather than as an isolated set of skills; as a facet rather than as a fragment of language. Basal textbooks still dictate learning experiences. The number of groups in each of the school subjects has become a problem to tax the ablest classroom administrator. Formal groupings—though flexible—do not appear to be the final answer to problems of differentiation. The large number of groups for these "subject" side-shows tend to get out of hand because they are not related to a main show. They still tend to represent an unwillingness to give up the departmentalization of subject matter. The teacher knows she is going in the right direction, but she tends to break down from the excessive clerical duties. At this point, some teachers give up in despair; others continue until they have a reasonable solution to the problem of individual differences.

Before the teacher has finally achieved this level of professional competence, she begins to get an answer to the chief problem arising at this point; namely, how to get everything done. These problems are resolved as the teacher acquires scholarship in the liberal arts and basic understandings of psychology. First, teaching units are expanded beyond those established in the basal readers. The entire class participates in the study of a large unit of experience, usually in the social

studies. Second, the teacher begins to consider the value of developing basic language skills in connection with the other school subjects. For example, more attention is given to the fostering of good reading and study habits in science, social science, and arithmetic. Third, more attention is given to teaching pupils after they recognize a need. Fourth, the teacher sets up class, group, and individual projects. In short, the teacher has reduced pupil frustration and has begun to see the light so far as her own administrative problems are concerned.

LEVEL NINE: CO-OPERATIVE PLANNING

It is at this level that the teacher begins to approach her problems with confidence. Here, she begins to underwrite a political democracy outside the school with an educational democracy within the classroom. There are very few evidences of pupil frustration. The authors of basal textbooks and standardized tests no longer dictate what shall be studied; instead, they become consultants. Instruction is differentiated in terms of achievement levels, needs and interests, and pupil aptitudes. For example, children are taught to read by visual-auditory, kinaesthetic, tracing, or whatever procedure a careful analysis reveals is required. Emphasis is on prevention of frustration, but remedial or corrective help is given where needed. The teacher and the pupils co-operatively develop large areas of experience, with the pupils entering zestfully into the listing of problems and the location, selection, and evaluation of pertinent information. Through the delegation of responsibilities to individuals and groups and the appraisal of results by the class, the teacher has found one way to solve the perennial problem of how to get everything done. She doesn't do it, the pupils do—to their profit!

At this level, the teacher begins to make an all-out unit approach. Since this is the first bold effort in this direction, there is an inclination to overemphasize

language as a means of learning and to stick a little too closely to a given center of interest. Visual aids, observations, and other types of learning aids are used, but there is still the problem of how to avoid verbalization. By means of this unit approach, the teacher recognizes personality development as a first-order goal of education.

LEVEL TEN: LANGUAGE-EXPERIENCE APPROACH

In a democratic society, tenth-level teaching is achieved through the cooperative efforts of administrators, supervisors, parents, teachers, and children This requires the use of cumulative records in which pertinent data regarding child development are recorded, a continuous evaluation of the objectives of education in a democracy, the freeing of the teacher from strait-jacket courses of study, basic understandings of likenesses and differences between pupils, highly competent teachers, the use of community resources, maximum use of the school plant for community activities, a parent-teacher study program, and so on.

Basic Assumptions. "Tenth-level" teachers base their practices on carefully considered assumptions. These assumptions are continuously appraised and revised because the teachers are motivated by the desire to improve the lot of each child. First, the teacher assumes that many of the understandings, skills, abilities, and attitudes required for social competence in a democratic society are developed in the classroom. Second, education increases individual differences. Hence, it is necessary to accept differences in developmental rates and patterns, differences in achievement levels, differences in needs, differences in learning capacities and aptitudes, etc. Third, a grade or a class is viewed in terms of differences as well as likenesses. Fourth, the course of study is assumed to be a guide rather than a prescription for all pupils Fifth, reading is considered to be a process rather than a subject, a facet

of language development. But, even more important, language-experience relationships are under continuous assessment, and both pupils and teachers develop a sensitivity to the use of high-level abstractions. Reading is assumed to be a process of evaluating the facts behind the symbols Sixth, it is assumed that guidance must be based on an understanding of the uniqueness of each child's needs Hence, the teacher is always on the alert to improve her observational techniques Seventh, prevention of maladjustment is assumed to take precedence over correction, but provision is made for both corrective and remedial activities Since it is assumed that effective instruction begins where the learner is, special attention is given to criteria for readiness at each "level" of learning and to systematic sequences of child development. Eighth, social and emotional development is presumed to rank high on a scale of objectives In view of this, rapport between pupils and between teachers and pupils is fostered by recognizing individual contributions Ninth, physical factors are credited with relatively high value, and the teacher works closely with health agencies on these matters Tenth, creative expression is believed to be an important factor in developing personality. These are only a few of the premises on which the tenth-level teacher bases guidance

The series of statements on the following pages is used to contrast low levels of professional accomplishment with high levels It is realized that each item represents two extremes on a continuum; that is, practices usually vary between the two points of view expressed in each set of statements

Summary

Individual differences in a classroom provide opportunities for rich living In a democratic society, these differences are regarded as assets Frustration rears its ugly head in the classroom when these

Low Level	*High Level*
1. Basic principle Education is the addition and accumulation of knowledge	1 Basic principle Education is a developmental process.
2 Preparing the pupil	2 Unfolding of potentialities
3 Subject matter	3 Individual development
4 Averages	4 Variations
5 Drills	5 Expression activities
6 Memorization	6 Experience
7 Passive reception	7 Active problem solving
8. Conning textbooks and lessons	8 Proposing problems and seeking solutions
9 Teacher, a drillmaster	9 Teacher, a guide
10 Reciting-to-teacher	10 Sharing experiences
11 Teacher domination	11 Pupil participation
12 Teacher dictation of learning goals	12 Teacher-pupil co-operation in establishing goals
13 Regimented teaching procedures	13 Teaching procedures differentiated in terms of pupil aptitudes
14 Achievement appraisal in terms of class average	14 Achievement appraisal in terms of capacity
15 Frustration	15 Readiness
16 Knowledge and discipline	16 Development
17 Grade placement	17 Systematic sequences
18 Mass instruction	18 Differentiated guidance
19 Quantitative home reports	19 Qualitative home reports
20 Largely vicarious experiences	20 Vicarious and direct experiences
21. Compartmentalization of subject matter	21 Integration of learning activities
22 Correction	22 Prevention
23 Molding from without imposition	23 Self-determining growth from within

24. Reading, a subject	24. Reading, a process of evaluation
25. Reading, a set of isolated skills	25. Reading, a facet of language
26. Reading, primarily a problem of word recognition	26. Reading, primarily a problem of semantics

...fferences are disregarded. This chapter has been used to outline arbitrarily established levels of professional competence in dealing with some of the opportunities made possible by the uniqueness of each individual.

An alert school administrator recognizes differences between teachers It is the task of the supervisor to begin where each teacher is—i.e., in terms of her level of professional competence—and to encourage professional growth. As a result, a school system may have teachers working happily at several levels of professional achievement. This is differentiated supervision!

Teachers must be qualified inside for the task they undertake. How they *think* and how they *feel* are important considerations Many brave men and women have given their all for a way of life which we have labeled a democracy. How far a given community can go in keeping faith with this ideal depends in no small measure upon the qualifications of each classroom teacher. The schools and the homes of today determine the social competence of our citizens of tomorrow Responsibility is clearly seen So let no teacher underestimate the role she is playing in future world affairs

AN EXPERIENCE CONTRIBUTING TO READING READINESS   *Cheney, Wash.*

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Appendix

ability capacity plus experience

absorption unit a unit of reading material which contains words already present in previous units; materials containing no "new" reading words

accent to give stress or prominence to a syllable

acoustics the science of sound

acuity sharpness or keenness

affix a prefix or suffix

alexia complete inability to read, characterized by an associative learning disability

ambidextrous skilled use of both hands

amentia mental retardation as applied to morons, imbeciles, and idiots

analysis taking apart or breaking down into smaller elements

anomaly a structure or a function that deviates from the norm

antonym a word having the opposite meaning of another word. Example: *hot* and *cold*

aphasia sensory or motor disability of language functions caused by brain injury

apperception relating of perception to experience

apprehension a low level of mental organization permitting understanding

articulation formation of speech sounds; utterance of distinct syllables

ascending letters letters that ascend to the upper shoulder of the type body, as *d, b, h, l,* etc.

aspirate a breathed sound such as the sound of *h* in *hot*

associative learning test a measure of ability to associate meaning with printed symbols

audiogram a record of a test of an individual's hearing

audiometer a device for testing hearing

auditory hearing

auditory acuity level of sensitivity, keenness of hearing ability

auditory aphasia word deafness

auditory discrimination ability to discriminate between sounds of different characteristic frequencies

auditory memory span the number of related or unrelated items that can be recalled immediately after hearing them presented

auditory perception mental awareness of sounds

basal-reader approach the development of basic reading abilities and skills by means of special textbooks, the development of initial reading skills and abilities by means of basal readers

basal reading a type of reading usually done during a developmental or directed reading period with basic or "method" readers

bilabial a sound articulated by means of both lips

blend the fusion of two (or more) sounds in a word without loss of identity of either sound

body size the size of a type considered from top to bottom of the letter

bone conduction transmission of sound waves to the cochlea of the ear by way of the bones of the head

Braille a system of printing for the blind, which makes use of raised dots

breve a short half circle placed over a vowel to indicate a "short" sound

cadence language rhythm

central nervous system (C.N.S.) the brain and the spinal cord

closed syllable a syllable ending with a consonant. Example *sit*

cochlea a division of the inner ear containing the endings of the auditory nerve

compound phonogram a phonic element which does not make a word by itself. Examples: *sl, str, ing, ight, ey,* or *ou*

conduction deafness a hearing impairment caused by defective mechanical processes of hearing. Usually the cause is found in the outer or the middle ear.

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configuration pattern, general form, or shape of a word

connotation that which is suggested or implied in addition to the basic meaning of a word

consonants sounds formed by the obstruction of the breath stream as it flows through the mouth

consonant trigraph a word containing three consonants Example *tch*

context the words and sentences composing the reading matter

context clue identifying a "new" reading word by anticipation of the meaning or through the words and ideas adjacent to the new word

continuants vowels that are not stopped

cruciality critical choice or decisiveness

cursory reading reading to grasp only general significance of content

deafened a deafened individual is one who has lost his hearing after having acquired some facility in speech production and hearing comprehension

dental minimum perceptible change in intensity

deductive proceeding from general to the specific or making application of a general principle

denotation basic meaning of a word

dentals sounds articulated by pressing the tip of the tongue against the teeth. Examples *d, t, s, z* (as in *zest*), *th, sh,* etc.

derivative a word made from a root and one or more formative elements called prefixes and suffixes

descending letters letters that descend below the type body, as *p, q,* etc.

developmental reading period· a period in which a group is given directed instruction in vocabulary development, silent reading preparation, oral reading, rereading, and supplementary reading for the purpose of increasing reading achievement at the instructional level

dextral (or dextrad) an innately right-handed individual

diacritical marks signs or small characters used to designate a particular sound value of a letter or letters

diagnosis determination of the nature of a disability

differentiated instruction· varying learning situations within the classroom for the purpose of providing equal learning opportunities

digraph two letters representing one so

such as *ea* or *ai* There are consonant and vowel digraphs.

diphthong two sounds that are so closely blended together that they give the impression of one sound, such as *oi* and *ow*

directed reading activity· a reading lesson based on basal-reader material; a developmental activity in which provision is made for orientation, silent reading for survey purposes, vocabulary and comprehension development, silent or oral rereading, and follow-up

dissyllable. a word with two syllables

dynamometer. an instrument for measuring strength of grip

dysfunction abnormal functioning or action

dyslexia visual aphasia; a type of dysphasia; inability to read, characterized by associative learning difficulty

ear training providing situations in which the pupil is taught to discriminate between the sounds of words Such activities usually include identification of words in spoken sentences, emphasizing word endings through rhymes, listening for certain initial sounds in words, and the like. The term *auditory discrimination* is preferred

em unit of measurement in typography; the square of a type body, a 12-point em is one pica. The letter "M" was adopted originally as being the nearest approach to a square letter The 12-point "M" is called the em or pica em.

en half of an em

endophasia silent reproduction of language; inner speech

enunciate to pronounce with distinctness

etiological pertaining to the cause of a disability

etymology a study of the origin or derivation of words

euphony well sounding; ease of pronunciation

experience approach the development of basic reading skills and abilities through experience; the use of language-type and reading-type experience records to develop initial reading skills and abilities

experience records· individual-, group-, or class-dictated compositions (See *reading-type experience records* and *language-type experience records*)

extrinsic outward, external. For example, a ~~ld star is an extrinsic reward.

~~*rception span·* (see *recognition span*)

~~*pan:* (see *recognition span*)

eye-voice span: the distance between the point being read (in oral reading) and the point at the right where the eyes are directed. In oral reading the eyes are usually ahead of the voice.

facet: a side of an area. For example, one side of a polished stone or one aspect of language. Reading, writing, and speaking are facets of the language area.

families: combinations of consonants and vowels used as a basis for synthesis or analysis. This term is seldom used in recent literature. Example: *at* family is used in words such as *bat*, *cat*, and *sat*.

final blend: the combining of the vowel with the succeeding consonant. Example *b-at*

fixation pause: the length of time required for the eyes to fix on a given part of a line in reading

framing words: identifying or designating a group of words by placing one hand at each end of the group

free reading: independent reading for information or pleasure

frequency: a physical characteristic of sound

frustrated: defeated in purpose

frustration level: the level at which the individual is thwarted or baffled by the difficulty of the reading material (See chapter on Discovering Specific Reading Needs)

functional: having value for adjustment or orientation

fundamental processes: basic skills and abilities

glossary: an alphabetical arrangement of words requiring explanation, usually found in the back part of a book

guide words: words printed in black-face capital letters at the top of a page in the dictionary. The word at the left side usually indicates the first word on the page and the word on the right gives the last word on the page

guiding question: question used by the teacher to lead a beginner through the thought of a unit In the initial stages of learning to read, the guiding question may focus the attention on the reading of a single sentence As the pupil grows in reading power, the guiding questions will focus attention on paragraphs, pages, and story units

hair space: a very thin space which is usually about one-half point thick

hearing aid: an electronic or mechanical device for improving hearing efficiency

hearing comprehension level: the highest reading level at which the individual can comprehend material read to him

heteronym: a word with the same spelling as another but having a different pronunciation and meaning Examples *lead* (a metal and a verb), *sow* (a hog and a verb)

hieroglyphics characters representing ideas

homonym a word having the same pronunciation as another word but differing in meaning and spelling Examples *fair* and *fare*, *bear* and *bare*

homophone (see homonym)

hyperopia farsightedness, amount of accommodation free of association with convergence

hypothesis something assumed as a basis for an explanation, a tentative theory

key sentence a sentence used in beginning reading activities to introduce a new word, to review a word causing confusion, or to provide context clues to words for self-help purposes

key words familiar words at the bottom of a page in the dictionary, used to help identify correct pronunciation of a given word

kinesthetic sensations arising from body movements

kinetic reversals confusions of directional sequence, such as *left* for *felt*

labialization formation of words by means of the lips without audible utterance

labials sounds articulated mainly by the lips. Examples: *wh*, *w*, *f*, *v*, *p*, *b*, and *m*

language-type experience records individual-, group-, or class-dictated compositions to develop language facility

lead when the word *lead* is used alone, it usually means 2-point lead

leaded having leads between the lines

leading vertical spacing, spacing between lines; thin strips of blank metal or "leads" inserted between lines by the printer

leads thin strips of metal used to provide extra white space between the lines

legasthenia inability to make adequate associations with the symbols of a printed page

letter phonogram a single consonant

leirography (after Strack) mirror writing

lexicographer an author or compiler of a dictionary

linguals sounds formed with the aid of the tongue Examples: *l* and *r*

linguistics science of language; study of all aspects of speech

lisping defective utterance of sounds, especially the sounds of the letters *s* and *z*

listening vocabulary number of words understood when heard

loudness a *psychological* characteristic of sound, a subjective characteristic dependent upon the intensity of the tone, the fundamental frequency, and the overtone structure

macron short horizontal mark placed over a vowel to indicate its long sound

mandible the upper or lower jaw

maturation development

meatus a narrow passageway, the passage from the outer ear to the drum membrane

memory span the number of items that can be recalled immediately after presentation The phenomena of memory are often classified as fixation, retention, recall, and recognition

Metronoscope a tachistoscopic device for the controlled time exposure of words and phrases for continuous reading (manufactured by the American Optical Company, Southbridge, Massachusetts)

mirror writing a tendency to write mirrored forms of words, letters, and numbers, writing read in a mirror

monocular regression right to left movement of one eye during reading

monosyllabic word a word composed of only one syllable Example *hot*

moron an individual with an I Q between 50 and 75; a high grade mental defective

morpheme a language element that connects images or ideas, a language element showing relationships Examples affixes, prepositions, conjunctions, accentuation, etc

motive question a question which gives direction to getting the central theme of a unit of reading material, a question which establishes a general purpose for the reading

myopia a condition of nearsightedness, inability to see clearly without minus lens correction

nasals sounds formed by using the tongue and palate to direct the sound into the nose Examples *m*, *n*, *ng*

negativistic tendency to respond by doing opposite of that which is ordered or requested

nerve deafness deafness caused by damage to the auditory nerve or its ending

neurogram a habit, an automatic response

nystagmus rapid oscillation of the eyeballs

oculomotor eye movement behavior

onomatopoeic words words formed by the imitation of natural sounds such as *buzze*, *patter*, and *hiss*

ontogeny the life cycle of an individual

open syllable a syllable ending with a vowel. Example *so*

Ophthalmograph a device for photographing eye movements during reading (manufactured by American Optical Company, Southbridge, Massachusetts)

optimum the most favorable

organ of Corti the sense organ of hearing

orientation preparation for a given undertaking or adjustment to a given situation; the organization of an individual's mental life which permits identification, understanding, and adequate response to given situations; to orient means to prepare

ossicle small bone, any one of the chain of three bones in the middle ear

overt outward, easily observed

overtone a *physical* characteristic of sound

palatals sounds formed between the tongue and palate Examples *k*, *g*, *y*, *q*, and *x*

palindrome a word that is the same whether read from the left or the right Example: *dad*

paresis a partial motor paralysis

perception recognition or awareness of sensation

perception span (see *recognition span*)

philology the study of language; philosophical study of language, a linguistic science

phoneme a group, or family, of related sounds

phonetic analysis the analysis of a word into its phonetic elements for pronunciation purposes, commonly used as a synonym for *phonics*

phonetic sight word a phonetic word taught as a sight word, usually because other words conforming to the same phonetic principle occur infrequently

phonetic word a word that is pronounced wholly or in part according to phonetic principles

phonetics the science of speech sounds

phonics the science of speech sounds as applied to reading

phonogram a letter or group of letters forming a speech sound, a word element

phylogeny the life cycle of the race

pica a size of type equal to 12-point square pica type is 12-point type six picas approximate one inch (99648), one pica equals six point measures or one-sixth of an inch

picture clue: an element in a picture which gives meaning to one part of the context; or the use of an illustration to get the general theme or significance of a unit of reading material

picture dictionary: a dictionary of commonly used words with corresponding pictures illustrating each word

pitch: a psychological characteristic of sound

plural meanings: (after Dolch) a number of meanings for words having the same spelling

pocket chart: a container or holder for flash cards

point: one twelfth of a pica (.013837), 12-point type means that it is cast on 12-point body. Nearly one seventy-second of an inch (.01384) or 0.34 mm. This new standardization, known as the point system, was finally adopted by the United States Type Founders' Association in 1887 and is now almost as universally recognized as the metric system

polysyllable: a word composed of more than three syllables

prefix: one or more letters or syllables combined with the beginning of the word to change or modify the meaning. For example: unsatisfactory

principle: a generalization based on experience

probable capacity level: (see hearing comprehension level)

pronunciation: act of uttering with the proper sound and accent

prophylaxis: prevention

protagonist: a leader in any enterprise or contest

random errors: generally inconsistent responses which represent no particular pattern; wild guessing. For example, children who have not had systematic instruction in word analysis make erratic and diverse responses to words.

rapport: mutually harmonious working relationships

readiness: a physical, mental, and emotional preparedness for a given learning activity

reading: interpretation of printed symbols, reconstructing the facts behind visual symbols

reading methods, pedagogical classification: on a pedagogical basis, reading methods may be classified as directed reading activities in which basal readers are used exclusively, experience approach, and modified experience approach (see also reading methods, pedagogical classification)

reading methods, psychological classification: on a psychological basis, reading methods may be classified as visual (non-oral), visual-auditory (traditional), visual-auditory-kinesthetic, visual-auditory-kinesthetic-tactile (or tracing). (See also reading methods, pedagogical classification)

reading readiness: a general development resulting in a desire, mental ability, and physical capacity for a given type of reading program

reading span: the number of words that can be repeated after a controlled time exposure of the reading material

reading-type experience records: individual-, group-, or class-dictated compositions in which the vocabulary is controlled to facilitate reading

reading quotient (R Q): the ratio between reading age and mental age; the ratio between reading age and an age assumed to be an index to capacity

reading vocabulary: words that can be identified and understood in a verbal context or in isolation

recognition span: the number of letters, parts of words, or words that can be identified at one fixation pause

regressive: backward

regressive eye-movements: right to left return of one or both eyes during reading

regressive frequency: number of times the eyes tend to retrace or review portions of the line being read

retention: remembrance

reversal tendency: the tendency of immature children or of children who have practiced immature habits to reverse or confuse letters and word forms

root: an original word form from which words have been developed by addition of prefixes, suffixes and inflectional endings

saccadic: discontinuous

sememe: an image or idea word, the element of a word that indicates its general meaning; a word or a part of a word, an element of language that provides basic images and ideas (see morpheme, a language element used as a connective)

semantics: science of meanings In general semantics, Count Korzybski is concerned primarily with language-fact relationships. Ogden and Richards have concerned themselves primarily with word-word relationships.

right-saving materials usually printed in 24-point type, sometimes 32-point type

right word a word that is memorized or recognized as a whole

sinistral (or sinistrad) an innately left-handed individual

sonant a voiced sound Examples *b, r, u, d*

space blank type used to separate words

span of recognition (see *eye span*)

speaking vocabulary words used correctly in speech

speech organs consist of lips, teeth, gums, hard palate, soft palate, tongue, and vocal cords

spelling vocabulary words spelled correctly in writing

stammering complete inhibition of speech, inability to utter a sound

static reversals confusions of single letters similar or identical in pattern but differing in spatial orientation, such as *bad* for *pad*

stem the part of a word form that is unchanged by additions which modify meanings the vertical stroke of a type face

strabismus squint, a lack of parallelism of the optical axes, "cross-eyes" or "wall-eyes"

strephosymbolia twisted symbols, a special type of reading disability For example the reading of *saw* for *was*, or *left* for *felt* (after Orton)

study systematic and purposeful activities in the thoughtful use of books

stuttering involuntary repetition of a sound or a syllable

suffix one or more letters or syllables added to the ending of a word to change the meaning Example *forming*

supplementary reading a type of reading used to re-enforce or to maintain ability which has been developed during the reading of basal materials, as differentiated from basal and independent reading

surds a voiceless sound Examples *p, f, wh, t*

syllabarium table of syllables

syllabication division of words into syllables, usually for pronunciation purposes

syndrome a constellation of difficulties, the symptoms characteristic of a given condition

synonym a word that has the same or nearly the same meaning as another word

synthesis putting together

systematic errors mistakes which consistently conform to one or a few principles For example, pupils may have difficulty largely with words and syllables containing short vowel sounds

systematic instruction planned teaching which provides for an orderly presentation of learning items, the amount of time spent on each item varying according to individual needs

tachistoscope a device for the rapid exposure of reading materials

terminal sound a final sound; frequently referred to as the blend of a vowel with a final consonant as at in *cat*, or *ake* in *bake*

theory a hypothesis for which there is some verification

therapeutic healing, curing, or correcting

thought question frequently used to designate a question asked after the first reading to stimulate depth and accuracy of understanding or to promote inferential thinking

timbre a psychological characteristic of sound

token running words in a unit of reading material (after Dr Wendell Johnson)

tone interrupter a small button or switch on an audiometer to interrupt the tone from the receiver, used to detect malingerers and to check on the accuracy of the subject's report

tympanum the ear drum

type face printing surface of a type

type size size of body and not of face

type-token ratio computed by dividing the total number of running words (tokens) in the number of different words (types)

types different words The number of types in a unit of *reading material is the number* of different words (after Dr Wendell Johnson)

velum the soft palate

vertigo dizziness

visual apprehension (see *perceptual span*)

visual memory span the number of related or unrelated items that can be recalled immediately after seeing them presented

visual span (see *recognition span*)

vocabulary development extending word meanings

vocabulary entry the term defined in a dictionary

vocalization movement of lips, tongue, or vocal apparatus of the throat

voiceless sound a consonant sound formed by the obstruction of the breath in the mouth and without vibration of the vocal cords. Examples. *k, p, t, wh*

vowel an unobstructed sound, called an open sound because it is *made with open throat*, mouth, teeth, and lips

whole word method word analysis without the physical separation of the word into its phonetic or structural elements

word analysis: the analyzing of a "new" or of an unlearned "old" word into known elements for the purpose of identification

word blindness: inability to interpret words due to a pathological condition. In recent literature the term is used infrequently.

word discrimination: the ability to distinguish between the forms or configuration of words

word perception: (see *word recognition*)

word phonogram: a small word, usually learned as a sight word, which serves as a word element in longer words For example, *at* in *and* *an*

word recognition: identification of a word by means of a context clue or skill in analysis of the word form

word variant a root and an inflectional ending

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Appraisal of Visual Discrimination

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Appraisal of Auditory Discrimination

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